UNIVERSITY OF GEORGIA

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Office of Research

Jan. 9, 2023

Dr. Jack Hu
Senior Vice President for Academic Affairs and Provost
203 Administration Building
220 S. Jackson St., Athens, GA 30602

Dear Provost Hu,

Consistent with the University of Georgia 4.13 Policy on Centers, I formally recommend the formation of the Center for Advanced Computer-Human Ecosystems as proposed by Drs. Grace Ahn, Kyle Johnsen, and Allan Tate. I have reviewed their proposal and find it meets the requirements outlined in the Policy on Centers. Additionally, this interdisciplinary Center would help further establish the University of Georgia in the emerging field of immersive and interactive computing systems research.

Sincerely,

Karen J.L. Burg

Karen J.L. Burg, Ph.D., FNAI, FBSE, FAIMBE
Vice President for Research

Attachments:
- Center for Advanced Computer-Human Ecosystems Proposal
- Letters of support from Dean Charles Davis, Dean Leo, Dean Marsha Davis, and Department Head of Advertising and Public Relations Juan Meng

cc: Charles Davis, Dean of Grady College of Journalism and Mass Communication
       Donald Leo, Dean of College of Engineering
       Marsha Davis, Dean of College of Public Health
       Juan Meng, Department Head of Advertising and Public Relations
       Sun Joo "Grace" Ahn, Associate Professor of Advertising
       Kyle Johnsen, Professor in School of Electrical and Computer Engineering
       Allan Tate, Assistant Professor of Epidemiology and Biostatistics

APPROVED:

_____   2/27/23
SVPAA & Provost   Date

CENTER OVERVIEW

A. Name: CACHE – Center for Advanced Computer-Human Ecosystems

B. Need

Immersive and interactive computing systems are quickly becoming integrated into our everyday lives as Big Tech companies have identified VR (virtual reality) and AR (augmented reality) systems as the next revolution in digital media. Research institutions and universities around the world are establishing interdisciplinary centers to study how these interconnected virtual worlds, popularly known as the *metaverse*, will transform the way humans interface with computers. Drs. Grace Ahn (Grady), Kyle Johnsen (Engineering), and Allan Tate (Public Health) have helped to position UGA on the frontlines in this space, with over 15 years of experience, knowledge, and reputation. Together, the three investigators have over $10 million in active funding to create a foundation for cutting-edge research rigor and excellence. This is our window of opportunity to position UGA as a preeminent center for research and professional development in advanced human-computer interactions.

Our peer and aspiration universities have already identified human-computer interaction as a key strategic area and are investing heavily in developing interdisciplinary centers and institutes. Pennsylvania State University established the Center for Immersive Experiences in 2019 (11 academic units), University of Maryland (school of medicine + computing science) established its Maryland Blended Reality Center in 2017, Stanford University established its Neurosurgical Simulation and Virtual Reality Center in 2016, and Clemson University established its Watt Family Innovation Center in 2016.

UGA has also invested heavily to remain relevant in this space, funding several VR and AR labs at Grady College, Engineering, the Main Library maker space, Educational Resources at the College of Veterinary Medicine, and the AI Institute. However, current resources and research efforts for studying immersive and interactive computing systems at UGA remain disjointed and ad-hoc, despite several well-established scholars with global reputations calling UGA their academic home. Establishing CACHE would allow UGA to centralize these efforts, catalyze synergistic research activities, boost extramural funding activities, and directly address the university's strategic plans for research, innovation, and entrepreneurship.

C. Purpose

The Center for Advanced Computer-Human Ecosystems will serve as the transdisciplinary hub for executing research and public-service activities related to immersive and interactive computing systems on campus. Given the interdisciplinary nature of immersive and interactive computing, establishing a central location for faculty, student, and staff across campus to pool their academic and professional resources in this area of research is imperative. The center's core goals will be to accelerate activities in these following areas:

- Identify and connect human-computer interaction research across campus
  - e.g., communication, psychology, public health, education, artificial intelligence, computer science, engineering, veterinary medicine, theater and film arts
- Establish UGA as the preeminent source of advanced human-computer interaction research
  - e.g., research consultation, media inquiries, expert witness, advisory boards, advanced data analyses, white papers on the state-of-the-art in advanced human-computer interaction
- Address critical social issues and provide cutting-edge solutions through VR and AR technologies
  - e.g., health interventions, climate change mitigation, STEM education support
- Promote interdisciplinary and multi-institution collaborations
  - e.g., nurture large scale federal grants and contracts
- Train UGA undergraduate and graduate students from different disciplines across campus to build foundations for future collaborative research
  - e.g., develop a pipeline for future talent and workforce
- Create meaningful connections with industry and funding agencies
  - e.g., federal, foundation, private companies
- Expand outreach to underserved communities around Athens and throughout Georgia
  - e.g., grassroots organizations, nonprofit organizations, youth organizations

D. Vision

Housed at the Grady College of Journalism and Mass Communication, the Center for Advanced Computer-Human Ecosystems (CACHE) will create synergistic energy by combining the powerful research caliber of different academic and service units across campus who are studying human-computer interaction. As a collaborative and transdisciplinary hub, center activities are anticipated to generate 1) high impact research, 2) extramural funding and contracts, 3) partnerships with communities in Georgia and abroad, and 4) national and international reputation as a thought leader in new and emerging technologies. These activities include:

D.1. Innovating Integrative Team Research in Advanced Human-Computer Interaction

- The Center director, Dr. Ahn, has engaged in large integrative team research since arriving at UGA in 2011. Her research teams are one of the most expansive and integrative in the field of human-computer interaction. She has generated ~$10 million in extramural funding through the large-integrative team research and has received the UGA large integrative team research fellowship training in 2020-2021. She currently serves as the Deputy Director for a NIH-funded inter-institutional center for children's environmental health.
- Grady College is home to four communication scientific laboratories which provide innovative means to design and assess message effectiveness in communication and behavior change. The skillsets offered by these laboratories are in high demand. For example, just this academic year, Dr. Ahn has been contacted by governmental agencies (e.g., Environmental Protection Agency, Federal Trade Commission), international nonprofit organizations (e.g., Girl Rising), local grassroots community organizations (e.g., Athens Chess and Community), universities (e.g., Emory University, Spelman College), industry partners (e.g., UPS Atlanta Headquarters, Trideum Corporation), and media (e.g., The Wall Street Journal, WSBTV Channel-2) to host lab demonstrations and discuss collaborations.
- Dr. Ahn's lab alone has active funding and projects with six colleges on campus (College of Engineering, College of Public Health, College of Environment and Design, College of Family and Consumer Sciences, Franklin College of Arts and Sciences, Mary Frances Early College of Education). Within Georgia, she is currently working with Emory University, Spelman College, Georgia Institute of Technology, and Georgia State University. Outside of Georgia, she is currently working with Michigan State University, Stanford University, University of Connecticut, Cornell University, University of Central Florida, Syracuse University, and Clemson University. Non-research organizations she is currently collaborating include Georgia Sea Grant, South Carolina Sea Grant, National Weather Services, YMCA of Metropolitan Atlanta, Athens Chess and Community, Center for Black Women's Wellness, Sharecare, and the National Military Family Association.
- The number of interdisciplinary faculty, students, and staff that currently work through Dr. Ahn's lab has outgrown the capacity of a single research laboratory and requires an expansion in infrastructure for sustainable growth and development. With over a decade's experience in large integrative team research, formal training, accrued knowhow in team leadership, and a robust pipeline of extramural funding, CACHE will hit the ground running for consistent and sustained growth in interdisciplinary projects that respond to large and complex problems.
- Establishing a robust infrastructure engaged in large integrative team research in advanced human-computer interaction would boost UGA's legitimacy in this space, adding credibility to our funding proposals and efforts to forge partnerships. Funders and partners would recognize the strong institutional support signaled by the center's founding.

D.2. Transdisciplinary Hub for Interactive and Immersive Technology Inquiries

- Currently, students and faculty who are interested in learning more about interactive or immersive technologies (e.g., VR, AR, video games) are forced to rely on personal networks and make multiple inquiries to eventually arrive at Dr. Ahn or Dr. Johnsen's lab. CACHE would serve as the "go-to" touch point for inquiries regarding innovation in interactive and immersive technologies. Drs. Ahn and Johnsen have a close working relationship with Dr. Allan Tate (College of Public Health); together, they have been able to integrate advanced data analytics of human behavior data.
- Current inquiries to Dr. Ahn reflect increasing demand that covers a wide range of interests, including teaching needs (e.g., Center for Teaching and Learning), big data analyses, university and industry partnerships, community involvement through extension offices, media coverage, undergraduate and graduate student interest in getting involved with research.

- CACHE would allow Drs. Ahn, Johnsen, and Tate to pool their human and technology resources to effectively address these inquiries and promote our achievements as a single, collaborative identity. Communications about UGA's strengths and impacts in research, innovation, and entrepreneurship in advanced human-computer interactions would be delivered through a single voice, rather than fragmented across different research units.
- CACHE would lower the inquiry barrier for other units on and off campus who are interested in advanced human-computer interactions but are unaware of UGA's capabilities in this area.
- Having a single, focused center would allow us to collaborate with other similar centers in the US and abroad at peer and aspirational institutions.

D.3. Expanding Community Partnerships Across Georgia and Worldwide
- Drs. Ahn, Johnsen, and Tate receive a large volume of inquiries regarding community partnerships. Community partners are often interested in building partnerships but experience difficulty in understanding the fragmented structure of a research-intensive university (e.g., academic units, bylaws, F&A agreement). Having CACHE would simplify the process and be conducive to expanding existing partnerships with community organizations locally and throughout Georgia.
- Dr. Ahn's lab has been actively involved with UGA programs designed to create a pipeline for the future workforce and future research expertise, such as the Young Dawgs program and the CURO program. She also hires 4-5 part time student programmers who receive training on programming and coding and build a digital portfolio of their work on video game design and coding for VR and AR environments. With the experience and training they gain from the lab, students become highly competitive job candidates. Some recent alumni from Dr. Ahn's lab have been hired into Collins Aerospace, NextGen Federal Systems, Athens Technical College, and UGA EITS, to list a few. The CACHE center would serve as a central location for training and educating the future workforce with a more systematic approach to training and nurturing talent in advanced human-computer interaction.
- Grady College is home to the Cox International Center for International Mass Communication Training and Research. Through collaborating with the Cox International Center, CACHE will be able to expand existing international collaborations to nurture global partnerships that engage and support research in human-computer interaction.

D.4. Proposed Center Activities (list not exhaustive)
- *VR System Setup and Consultation:* There may be researchers and industry professionals who express interest in VR systems, but feel overwhelmed by the relatively novel technology. Drs. Ahn and Johnsen have founded several large VR labs for teaching and research and conducted a series of clinical trials and field studies in which hundreds of users concurrently engage in VR experiences. They are well-versed in planning, designing, ordering, and setting up VR systems in different environments for a wide range of user age groups. Dr. Tate has extensive experience as a biostatistician for these projects that involve complex human-computer interactions and can provide the appropriate data analyses and interpretation. CACHE will provide customized training and consultation sessions that are suitable for each individual case. These trainings and consultations will involve: 1) discovery of current access to technology, space, financial, and staff resources, 2) discussion of aims and goals for integrating VR in research or professional practice, 3) support and guidance for product selection, and 4) assistance in setup and data-driven testing.
- *Drop-in Visits:* In addition to scheduled visits from faculty, students, staff, alumni, CACHE will provide public hours for anyone on campus who is interested in immersive and advanced human-computer interaction research to drop by for hands-on experience with the equipment. This may include faculty who are interested in integrating VR or AR technologies into their research but are unsure, students who have heard about immersive technologies but do not have the financial or spatial resources to purchase on their own, or companies who are interested in collaborating with CACHE but would like to first visit the facilities. The lab manager on site will coordinate and oversee these public hours to ensure the safety of all visitors.
- *Message Evaluation and Consultation:* The COVID-19 global pandemic has highlighted the critical role of effective communication in moving the public's opinions. CACHE has access to expert communication and media psychology faculty at Grady College of Communication and Journalism and will provide evaluations and consultations on message design and outcome assessment. These consultations will help to ensure that the message is clearly understood, empowering, and will

encourage audiences to move towards behavior change. Grady College brings extensive resources to facilitate these consultations and evaluations—social media and web tracking software, advanced online surveys, plus tools to monitor nonverbal language, facial movements, and eye tracking, in real-time, as people consume messages. CACHE will accept consultation and evaluation requests from researchers and professionals on- and off-campus, with priority given to underserved communities.

- *Virtual Reality Demo Day*: Despite VR systems becoming dramatically more affordable in recent years, VR is still a relatively nascent and untested technology among everyday consumers. VR is also a highly interactive platform that is difficult to explain or describe using classroom sessions or verbal descriptions. To increase familiarity with both VR and our community engagement efforts, we will host a VR Demo Day for researchers and practitioners on- and off-campus. Drs. Ahn and Johnsen have regularly participated in and hosted similar events for 15+ years and possesses intimate knowledge of the planning, implementation, and execution of community-level events involving VR. The demonstrations will be complemented with speakers invited from partner centers in other states to provide expertise and relevant information about the participants' VR experiences.
- *State-of-the-art White Papers*: CACHE will produce white papers reporting a summary of center projects and their main findings, as well as its other accomplishments in the area of advanced human-computer interaction. The white papers will be shared widely with related federal funding agencies, industry and community partners, other networked centers, and independent researchers who may be interested in learning about the strides that UGA is making in this space.

E. Organizational Structure

The Center for Advanced Computer-Human Ecosystems will reside within Grady College of Journalism and Mass Communication, although its initiatives and center activities will involve students, faculty, and staff from across the university. Drs. Ahn (Journalism and Mass Communication), Johnsen (Electrical and Computer Engineering), and Tate (Public Health) will serve as core faculty members developing research and outreach activities at the center. Dr. Ahn currently oversees 10 undergraduate, graduate, and postdoctoral research assistants affiliated with Grady College as well as one full-time program coordinator and one lab manager. All of these personnel and students will be absorbed into CACHE. Dr. Johnsen currently oversees 7 undergraduate and graduate students in his engineering lab and his students will be actively involved in the center's activities. Dr. Tate currently oversees 17 individuals at multiple career stages as members of his lab including undergraduate, graduate, postdoctoral associate, data scientist, and junior faculty members currently on NIH K-mechanisms. Approximately half of these investigators will be actively involved with supporting the Center's activities. Grady College is committed to providing the center with physical work and research space as it becomes necessary and practicable.

F. Key Personnel

Sun Joo (Grace) Ahn (Ph.D., Stanford University), Associate Professor of Advertising, will serve as the center's director. She has over 15 years of experience in leading large integrative team research projects on topics of advanced human-computer interaction. She founded the Games and Virtual Environment Lab at UGA in 2011 and has been its director for over a decade. She is the Deputy Director of the NIH-funded Center for Children's Health Assessment, Research Translation, and Combating Environmental Racism (CHARTER), co-leading the center activities with Emory University. Her main program of research investigates how interactive and immersive technologies, such as VR and AR, shape the way that people think, feel, and behave in the physical world. Her work is supported by the National Science Foundation, National Institutes of Health, National Oceanic and Atmospheric Administration, and the Environmental Protection Agency. She is the editor in chief of *Media Psychology*, one of the top media psychology outlets in the field of communication.

Kyle Johnsen (Ph.D., University of Florida), Professor of Engineering and Director of the Georgia Informatics Institutes for Research and Education, will serve as the center's associate director. He has over 20 years of experience in applying innovative VR and AR solutions to solve large, complex problems. He founded the Virtual Experiences Laboratory at UGA in 2008 and has been its director for 14 years. He has worked closely with Dr. Ahn's team for over a decade, and the innovative creativity and scientific rigor of their collaboration have been recognized with top paper awards at premier conferences, such as IEEEVR, ASEE and I/ITSEC.

Allan Tate, (Ph.D., University of Minnesota), Assistant Professor of Epidemiology and Biostatistics and Coordinator of the Public Health Data Fluency Certificate, will serve as the Center's resident biostatistician

supporting research, mentoring, and proposal development activities. He is an expert on the collection and analysis of intensive longitudinal data and intervention studies that employ sensor and mHealth instruments to effect whole-person health and behaviors. He has maintained an active collaboration with Dr.s Ahn and Johnsen since joining UGA for the previous three years and directs his research program to understand how technology can be used to understand and scale preventive public health interventions at a population level. His interdisciplinary, mixed methods work cuts across social science disciplines, public health, biostatistics, and policy funded by the National Institutes of Health, Robert Wood Johnson Foundation, Department of Air Force, and State of Georgia.

Rebecca Grimsley (MPH, University of Georgia), Program Coordinator for the NIH-funded Virtual Fitness Buddy Ecosystem and the NIH-funded CHARTER center, will serve as the center's administrative director. She has worked closely with Drs. Ahn and Johnsen since 2016 and has been critical in the success of the labs' funded projects. She has extensive experience in serving as the liaison between research labs and community organizations (e.g., YMCA of Metropolitan Atlanta, Gwinnett County Public School). She will oversee all administrative and liaison activities of the center, including setting up and hosting meetings, assisting project recruitment activities, assisting with grant writing and submission, overseeing center budget, and managing the center calendar for events and research projects.

Facilities manager (TBD). The facilities manager's responsibilities include managing hardware and software inventory, timely repairs, operating demonstrations for faculty and student visitors, troubleshooting hardware and software, and serving as a liaison with the facilities manager at Grady College.

Research scientist (TBD). The research scientist will be a full-time research staff, fully dedicated to conducting research studies at the center. The research scientist will hold a PhD degree in a field related to human-computer interaction, including communication, media psychology, or computer science. The main responsibilities will include designing and implementing experimental studies, writing IRB protocols, collecting human-subjects data, writing academic manuscripts, and writing funding proposals.

Full-time programmer (TBD). The programmer will be a full-time staff member dedicated to creating VR and AR experiences with game engines, such as Unity or Unreal. The programmer will be responsible for creating interactive and immersive experiences needed to conduct research studies or complete contract projects.

G. Budget
The center faculty will remain on state-funded budget lines allocated by the Department of Advertising and Public Relations and the College of Engineering.
- To support the personnel for the Center, we would need approximately
  - Rebecca Grimsley: $65,000
  - Research scientist: $70,000
  - Facilities manager: $50,000
  - Programmer: $70,000
  - Post-doctoral research associate: $50,000
- The bulk of these personnel's efforts (Rebecca Grimsley, facilities manager, post-doctoral research associate) are covered by actively funded grant projects for the next three years. We would need funding for the research scientist and programmer, approximately $140,000/year.
- Other activities, such as VR Demo Day, will require approximately $10,000/year.
- Provost Jack Hu has committed $75,000/year for 2 years in startup for the center
- Grady College and the Department of Advertising and Public Relationships will divide the cost of the research scientist, not to exceed $100,000 total.
- Grady College will contribute 80% of the college's IDC (30%) generated from the Center's grants back to fund its activities.
- Additional funding will be generated from extramural funding submitted through the Center, consultation services, and contracts.

H. Physical Resources
- The VERGE lab (Room 504) and GAVEL lab (135A, 135B) spaces will be merged on the 5th floor of Grady College

- Currently, the lab resources are split between 1st and 5th floors, making it difficult to integrate the activities happening in each respective space
- Grady already has other lab spaces (psycho-physiology, eye-tracking) on the 5th floor. Establishing the Center on the 5th floor will promote synergistic activities between existing labs.
- Desk/office space for program coordinator, three postdoctoral research associates, three doctoral students, one research scientist, programmer
- Waiting area for participants and visitors
- Large room for meetings and presentations
- Space for equipment storage

I. Evaluation and Review
The center faculty will be evaluated for promotion, tenure, and compensation by the Department of Advertising and Public Relations and the College of Engineering on their normal schedules. Following guidelines set forth by the university and Grady College, CACHE will be reviewed internally every five years with all information made public. Reviews will follow the General Academic Policy of the University (Section 4.01-03). Dr. Ahn will work with the Department Chair and the Associate Dean for Academic Affairs to assess the performance of the center broadly in the areas laid out in Section D. The review will assess achievement of the following areas:

I.1. Research
CACHE will disseminate high impact research outputs in several ways. The faculty, students, and staff involved in the center research will publish research findings in a wide range of academic disciplines, including media psychology, communication, psychology, marketing, advertising, business, computer science, engineering, and human-computer interaction. In addition, center members will participate in academic and professional conferences to share ground-breaking research findings. The center will also actively engage in social media and public facing communication channels (e.g., TED talks) to keep local communities and members of the public interested and invested in the research on advancing human-computer interactions. Evaluation criteria will look at both the quality and quantity of the research produced in the respective venues.

I.2. Extramural Funding and Contracts
CACHE will actively seek extramural funding from federal agencies as well as contracts from private agencies, foundations, and companies. Other revenue generating activities will be developed over time, such as consultation services or online webinars. Evaluation criteria will look at the funding proposals submitted, funding proposals awarded, and activities to expand future proposal submissions (e.g., pilot studies, training). The center will aim to submit at least $1 million in funding proposals per year for each cycle of the center review ($5 million/cycle). In 2021, Drs. Ahn, Johnsen, and Tate submitted approximately $2 million in funding proposals as a team.

I.3. Partnerships with Communities in Georgia and Abroad
CACHE will develop and foster partnerships with local communities in Georgia as well as outside of Georgia to expand its reach and maintain the relevance of its activities. Center partnerships will be evaluated on the extent to which center activities involve partners and fulfill Grady College's strategic plan as well as the university's land and sea grant missions.

Grady College of Journalism and Mass Communication
Office of the Dean

September 27, 2022

Karen Burg
Vice President for Research
University of Georgia
150 Paul D. Coverdell Center for Biomedical and Health Sciences
500 D. W. Brooks Drive
Athens, GA 30602

Dr. Burg:

Attached please find a proposal for a new research center in Grady College – the Center for Advanced Computer-Human Ecosystems. The proposed center is the latest advancement by Dr. Grace Ahn and her UGA collaborators in Engineering and several other UGA units in research using virtual and augmented reality.

We've worked closely with Provost Hu to form this proposal, which seeks to leverage the work Dr. Ahn has done, which to date has generated more than $10 million in funding. The proposal has been reviewed and approved in the college by myself, Dr. Glen Nowak, Associate Dean for Graduate Studies, Dr. Janice Hume, Associate Dean for Academic Affairs, and the Advertising & Public Relations Department.

Dr. Ahn has built impressive research partnerships across the campus, the nation and the world. She's working currently with researchers from the College of Engineering, College of Environment and Design, College of Family and Consumer Sciences, College of Public Health, Franklin College of Arts and Sciences, and the Mary Frances Early College of Educatio. Outside of Georgia, she is currently working with Michigan State University, Stanford University, University of Connecticut, Cornell University, University of Central Florida, Syracuse University, and Clemson University. Non-research organizations she is currently collaborating include Georgia Sea Grant, South Carolina Sea Grant, National Weather Services, YMCA of Metropolitan Atlanta, Athens Chess and Community, Center for Black Women's Wellness, Sharecare, and the National Military Family Association.

We're moving to level the playing field with several of our peer and aspirant institutions which have recently invested in similar centers. Our peer and aspiration universities have already identified human-computer interaction as a key strategic area and are investing heavily in developing interdisciplinary centers and institutes. Pennsylvania State University established the Center for Immersive Experiences in

2019 (11 academic units), University of Maryland (school of medicine + computing science) established its Maryland Blended Reality Center in 2017, Stanford University established its Neurosurgical Simulation and Virtual Reality Center in 2016, and Clemson University established its Watt Family Innovation Center in 2016.

This is our window of opportunity to position UGA as a preeminent center for research and professional development in advanced human-computer interactions. Dr. Ahn is an extraordinary faculty member, and the center under her direction will have an enormous impact on the field. We hope you find the proposal to your satisfaction, and that you can recommend to Provost Hu that it be created. If you have any questions about the proposal, please don't hesitate to contact me at cndavis@uga.edu or at 706-248-6636.

Sincerely,

Charles N. Davis
Dean
Grady College

December 8, 2022

Dr. Karen Burg
Vice President for Research
University of Georgia

RE: Support Letter for Center for Advanced Computer-Human Ecosystems

Dear Dr. Burg:

The College of Engineering is pleased to support the creation of the Center for Advanced Computer-Human Ecosystems (CACHE) led by Dr. Grace Ahn in the Grady College of Journalism and Mass Communication.

The creation of the CACHE Center will further interdisciplinary research in our college and across campus. Dr. Ahn is an established leader the scholarship of how social media, video/internet games, and immersive virtual environments influence user attitudes and behaviors. She is a collaborative researcher, and she has been working with faculty in the College of Engineering – most notably Dr. Kyle Johnsen in the School of Electric and Computer Engineering – for many years on topics that intersect with her research. The strength of her scholarship in this field and long history of collaboration makes me very confident that the creation of the CACHE center will enhance these partnerships even further. Equally important is that Dr. Ahn and her collaborators have a long history of successfully obtaining extramural funding for their research. The CACHE center will provide a focal point for these efforts and increase the stature of their scholarship. Over time, the creation of the CACHE Center will place UGA at the forefront of scholarship in this field and bring even greater visibility to our colleges and the university.

The College of Engineering wholeheartedly supports this proposal.

Sincerely,

Donald J. Leo
Dean and UGA Foundation Professor

College of Public Health
Dean's Office
Health Sciences Campus
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Athens, Georgia 30602
TEL 706-542-0939 | FAX 706-542-6730
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December 9, 2022

Karen Burg
Vice President for Research
University of Georgia
150 Paul D. Coverdell Center for Biomedical and Health Sciences
500 D. W. Brooks Drive
Athens, GA 30602

Re: Supporting letter for the Center for Advanced Computer-Human Ecosystems

Dear Dr. Burg,

On behalf of the College of Public Health (CPH), I am writing to support the new Center for Advanced Computer-Human Ecosystems (CACHE) housed in the Grady College. Dr. Ahn has fostered mutual collaborations with researchers in the College, including Drs. Tate and Rathbun, who are at the cutting edge of leveraging technology as a vehicle for public health intervention delivery and as a component of evidence-based interventions to promote healthy behaviors and physical health.
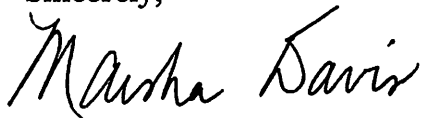
Understanding how health develops where people play is a central component of Healthy People 2030 targets, and where people play is increasingly becoming virtual and/or integrated with augmented technologies in everyday life. In this regard, the CACHE proposal is in line with the College's strategic missions of promoting interdisciplinary research collaborations and in fueling innovation in health research. This evolving landscape of how humans interact in virtual environments poses an opportunity for UGA public health research to become recognized as a leader in the empirical evaluation of human-computer ecosystem behavioral interactions and in the development of next-generation interventions that harvest technology to promote health.

Dr. Ahn has worked closely with our College to integrate the strong research caliber of CPH researchers and has successfully secured extramural funding from multiple mechanisms to advance this area of research and establish interdisciplinary, multi-university collaborations. At UGA, Dr. Ahn has active collaborations and projects under review beyond CPH that also incorporate the perspectives of College of Engineering, College of Environment and Design, College of Family and Consumer

Sciences, Franklin College of Arts and Sciences, and Mary Frances Early College of Education. Outside of UGA, she fosters partnerships in peer and aspirational settings including Michigan State University, Stanford University, University of Connecticut, Cornell University, University of Central Florida, Syracuse University, and Clemson University. The proposed Center will have transformative implications for public health research innovation, pedagogical opportunities in teaching, and community engagement and service through novel human-computer ecosystems implementations.

The College of Public Health fully supports the strategic positioning of the CACHE proposal and advocates for its establishment as a hub for interdisciplinary innovation in research at the intersection of technology and public health. Please contact me if you have any questions about the proposal at davism@uga.edu or by phone at 706-542-0939.

Sincerely,

Marsha Davis
Dean

Grady College of Journalism and Mass Communication

Department of Advertising and Public Relations

October 7, 2022

Karen Burg
Vice President for Research
University of Georgia
150 Paul D. Coverdell Center for Biomedical and Health Sciences
500 D. W. Brooks Drive
Athens, GA 30602

Re: Supporting letter for the Center for Advanced Computer-Human Ecosystems

Dear Dr. Burg:

On behalf of the Department of Advertising and Public Relations, it is my pleasure to submit a proposal for a new research center in Grady College, the Center for Advanced Computer-Human Ecosystems (CACHE). The proposed center will serve as the transdisciplinary hub for executing research and public service activities related to immersive and interactive computing systems on campus. The center will be directed by Dr. Grace Ahn and her UGA research collaborators in Engineering and several other UGA units in research using virtual and augmented reality.

The Department and the College have worked closely with Provost Hu in this past summer to form this proposal to further support the scholarship and grant work Dr. Ahn has done. We hope the establishment of this new center will expand the interdisciplinary nature of immersive and interactive computing systems to provide more research and collaborative opportunities within and beyond the campus of UGA. Dr. Grace Ahn has worked closely with me on this proposal. The proposal has been reviewed and approved by Dr. Glen Nowak, Associate Dean for Graduate Studies, Dr. Janice Hume, Associate Dean for Academic Affairs, and Dr. Charles Davis, Dean of the Grady College.

Dr. Ahn has built a stellar record of engaging in large integrative team research since arriving at UGA in 2011. Her research teams are one of the most expansive and integrative in the field of human-computer interaction. She has generated ~$10 million in extramural funding through the large-integrative team research and has

received the UGA large integrative team research fellowship training in 2020-2021. She currently serves as the Deputy Director for a NIH-funded inter-institutional center for children's environmental health. Dr. Ahn is currently working on active funding and projects with six colleges on campus (College of Engineering, College of Environment and Design, College of Family and Consumer Sciences, College of Public Health, Franklin College of Arts and Sciences, Mary Frances Early College of Education).

Within Georgia, Dr. Ahn is currently working with Emory University, Spelman College, Georgia Institute of Technology, and Georgia State University. Outside of Georgia, she is currently working with Michigan State University, Stanford University, University of Connecticut, Cornell University, University of Central Florida, Syracuse University, and Clemson University. She has envisioned the new center to be an advanced hub to combine the powerful research caliber of different academic and service units across campus to focus on human-computer interaction research. The new center will position UGA at the forefront of innovative research on human-computer interactions. Dr. Ahn is the perfect candidate to direct the new center given her solid background in high-impact research in the field.

We hope you find the proposal to your satisfaction, and you would support us to have the center established. If you have any questions about the proposal, please don't hesitate to contact me at jmeng@uga.edu or at 706-542-4791.

Respectfully submitted,

Juan Meng, Ph.D.
Head, Department of Advertising and Public Relations
Associate Professor, Public Relations