

LOI For Phase 2 Projects / Subprojects template

Completed Letters of Intent (LOIs) should be sent as email attachments to applications@grand-nce.ca with "GRAND Phase 2 LOI" as the subject line.

A successful proposal will address problems of significant relevance to the GRAND research program and must meet all of the guidelines for projects within GRAND, including the following mandatory requirements:

- The project must address significant research issues relevant to one or more of the GRAND Challenges identified for Phase 2 of the GRAND NCE
- The Project Leader and Co-leader must work at different universities; often they will represent multiple disciplinary approaches, appropriate to the project.
- There must be at least three researchers (including the Project Leader and Co-leader) who are or are eligible to be Principal Network Investigators within the GRAND NCE.
- There must be at least one Project Champion personally involved in planning and carrying out the project who is affiliated with a current or potential GRAND Partner drawn from the receptor community.
- One or more Partners from the receptor community must commit to making significant cash or in-kind contributions to the project.
- A current NSERC Form 100, SSHRC CV, or CIHR Common CV for both the Project Leader and Co-leader must be submitted as attachments to the LOI. Failure to include these attachments will be cause for immediate rejection.

Detailed instructions for completing this LOI template are on Page 2. More information on Phase 2 of the GRAND NCE is available on the GRAND website at the following URL, which will be updated with links to additional information as it becomes available: <http://grand-nce.ca/renewal>

Please note: If you complete this form using Preview, do not enter more text than is visible within the dimensions of the provided text box. Text that exceeds the visible limits will not be reviewed.

Project Title and Description

☒ Full project LOI ☐ Subproject only LOI

Title of proposed project

MAKE: Collective and Participatory Practices for Culture, Games, and Technology

Brief description for public use

The MAKE project will research and develop effective social, technical, and organizational platforms and tools for museums, games, and maker communities in response to the rise of social technologies and participatory maker movements.

Proposed Project Leader

☒ Form 100, SSHRC CV, or CIHR CCV has been attached

Name

Ron Wakkary

Email

rwakkary@sfu.ca

University

Simon Fraser University

Title/Position

Professor/Director, Interaction Design Research Centre SFU

Proposed Project Co-leader

☒ Form 100, SSHRC CV, or CIHR CCV has been attached

Name

Lynn Hughes

Email

lynn.hughes@concordia.ca

University (must be different from Project Leader)

Concordia

Title/Position

Associate Professor/Concordia Research Chair (Tier 1)

Proposed Project Champion

☐ Confirmed ☐ Contacted ☐ Not Yet Contacted

Name

Andrew Hunter

Email

Andrew_Hunter@ago.net

Organization

Art Gallery of Ontario

Title/Position

Fredrik S. Eaton Curator, Canadian Art

Instructions for Letter of Intent for Phase 2 of the GRAND NCE

Front Page: All fields are mandatory. (a) Provide a project title and indicate whether the LOI is for a full project with subprojects or is only for a single subproject. LOIs that only propose a subproject will be matched with related LOIs to form full projects. (b) Provide a brief description of the proposed research suitable for posting on a public website that explains the project in terms accessible to the digital media community. (c) Provide the name, email address, university, and title for both the proposed project leader and the proposed project co-leader. (d) Provide the name, email address, organization name, and title for the proposed project champion (a person affiliated with a project partner who will be engaged in planning the project) and indicate whether the project champion has been confirmed, has only been contacted, or has yet to be contacted.

This Page: Read all of the instructions for completing the LOI template before filling out any of the information on later pages.

In **Part A**, provide the names of up to six partner organizations, indicate whether each has been confirmed, has only been contacted, or has yet to be contacted, and provide a brief explanation for how each organization will be involved in the project either as an active participant or as a potential receptor that will benefit from the research.

In **Part B**, list all GRAND projects that are related to the new LOI and also any other LOIs you are aware of that may be relevant to the new LOI.

In **Part C**, list up to nine additional co-applicants (not including the individuals listed on Page 1) who are expected to be involved as active participants in the research project. Indicate for each whether the individual is a project champion from the receptor community or an academic researcher.

In **Part D**, succinctly summarize (up to one half page) the problem being solved by the research.

In **Part E**, provide an overview (up to one and one half pages) of the proposed solution and the approach that will be taken in the research. Include relevant details about the theoretical framework, significant previous work, methodological approaches, and how the research will be managed and structured to achieve the desired goals. If you checked the box on the **Front Page** indicating you are submitting an LOI for only a subproject, just use the first box for **Part E**, don't use the second box on the continuation page.

In **Part F**, describe up to six subprojects (up to one half page for each subproject) that will be pursued during the first two years of the project. Indicate for each subproject the research question(s) that will be addressed, the relationship of the subproject to the rest of the project, the deliverables and assessment criteria appropriate for evaluating the success of the subproject, and the time frame (start and finish dates) estimated for the subproject. If you checked the box on the **Front Page** indicating you are submitting an LOI for only a subproject, enter "N/A" in all of the fields in **Part F** and continue to **Part G**.

In **Part G**, explain the likely technology transfer, knowledge mobilization, knowledge translation, or other activities that are planned for the project and how they may provide benefits to the receptor community.

In **Part H**, explain how the project will interact with other projects and the ways in which it may support or otherwise enhance the overall impact of the network.

In **Part I**, explain specific ways in which current or future partners will participate in the project and the mechanisms that will be used to ensure that this takes place.

In **Part J**, for each of the seven GRAND Challenges check whether the project will make its primary research contribution (check exactly one box) or a secondary research contribution (as many additional boxes as apply) to the challenge. Check "N/A" for any challenge that is not significantly impacted by the proposed research. For each challenge where a contribution is expected, provide a brief description of the likely contribution and its importance to the receptor community. The "Other" category may be used to describe anticipated contributions to the research infrastructure and enabling technologies and methodologies used in the GRAND NCE, or to other areas relevant to digital media that may be impacted, if the proposed research is expected to make a significant contribution in these areas.

Part A: Receptors and Partners list up to six organizations		
Organization Art Gallery of Ontario	<input checked="" type="radio"/> Confirmed	<input type="radio"/> Contacted <input type="radio"/> Not yet contacted
Brief description of involvement Andrew Hunter, Fredrik S. Eaton Curator, Canadian Art will lead AGO's effort in the MAKE project. AGO will primarily be involved in the "MAKEMuse" sub-project, however will have interests in other MAKE sub-projects (including COCurate, CODesign, COStory). The AGO will lead and coordinate the Ontario consortium of partners including ROM, OSC and Royal Botanical Gardens, as well as partner with other Canadian cultural institutions with regard to MAKE.		
Organization Telus World of Science Science Museum	<input type="radio"/> Confirmed	<input checked="" type="radio"/> Contacted <input type="radio"/> Not yet contacted
Brief description of involvement The Telus World of Science will participate in "MAKEMuse" sub-project as a receptor community partner but will also be central to other projects as well as the "CODesign" project through their "Fablab".		
Organization Ville de Montreal	<input checked="" type="radio"/> Confirmed	<input type="radio"/> Contacted <input type="radio"/> Not yet contacted
Brief description of involvement Beginning in the Parc-Extension neighborhood in Montreal, municipal cultural and social agents will work with MAKE researchers to develop a range of participatory activities aimed at bringing together the different immigrant communities.		
Organization Gesture Tech	<input checked="" type="radio"/> Confirmed	<input type="radio"/> Contacted <input type="radio"/> Not yet contacted
Brief description of involvement Gesture Tech is a collaborative researcher on the project, donating in-development hardware, and advising us design with distinct stakeholders in industry, community and museum spaces, and participatory installation in different environments.		
Organization Mont Royal Games Society	<input checked="" type="radio"/> Confirmed	<input type="radio"/> Contacted <input type="radio"/> Not yet contacted
Brief description of involvement MRGS brings together most of the emerging and indie game designers/companies in Montreal. They are connected to similar groups across Canada and internationally and provide us with a high level of community credibility amongst the most open and innovative game designers. We will use their network to find individuals and companies interested in working on various community based projects (e.g. for CoDesign and DIGThings nad DIYLoc) and also co-produce events.		
Organization Google	<input checked="" type="radio"/> Confirmed	<input type="radio"/> Contacted <input type="radio"/> Not yet contacted
Brief description of involvement Google will be particularly involved in locative games sub-projects, especially "DIYLoc". Google is interested in understanding how mobile video conferencing can be used to connect people separated by distance.		
Part B: Relations to existing and proposed projects in the GRAND NCE		
Related Current Projects DIGILab, DIGIKIDZ, GAMFIT, MOTIVA,		
Related LOIs INDIEGAME, MOTIVA, GAMKIDZ, ENGAGE		

Part C: Additional Co-Applicants List up to nine additional co-applicants		
Name Kate Hennessy	Email hennessy_kate@sfu.ca	<input type="checkbox"/> Project Champion <input checked="" type="checkbox"/> Researcher
Organization Simon Fraser University	Title/Position Assistant Professor	
Name Matt Ratto	Email matt.ratto@utoronto.ca	<input type="checkbox"/> Project Champion <input checked="" type="checkbox"/> Researcher
Organization University of Toronto	Title/Position Assistant Professor	
Name Paula Gardner	Email pgardner@faculty.ocadu.ca	<input type="checkbox"/> Project Champion <input checked="" type="checkbox"/> Researcher
Organization OCADU	Title/Position Associate Professor	
Name Geoffrey Rockwell	Email geoffrey.rockwell@ualberta.ca	<input type="checkbox"/> Project Champion <input checked="" type="checkbox"/> Researcher
Organization University of Alberta	Title/Position Professor	
Name Bart Simon	Email bart.simon@concordia.ca	<input type="checkbox"/> Project Champion <input checked="" type="checkbox"/> Researcher
Organization Concordia University	Title/Position Associate Professor	
Name Carman Neustaedter	Email carman_neustaedter@sfu.ca	<input type="checkbox"/> Project Champion <input checked="" type="checkbox"/> Researcher
Organization Simon Fraser University	Title/Position Assistant Professor	
Name Brian Greenspan	Email brian_greenspan@carleton.ca	<input type="checkbox"/> Project Champion <input checked="" type="checkbox"/> Researcher
Organization Carleton University	Title/Position Associate Professor	
Name Caitlin Fisher	Email caitlin@yorku.ca	<input type="checkbox"/> Project Champion <input checked="" type="checkbox"/> Researcher
Organization York University	Title/Position CRC/ Associate Professor	
Name Jason Camlot	Email jason.camlot@concordia.ca	<input type="checkbox"/> Project Champion <input checked="" type="checkbox"/> Researcher
Organization Concordia University	Title/Position Associate Professor	

Part D: Summarize the problem being solved (1/2 page)

The emergence of social technologies and the rise of amateur expert movements have cast a new light on the power of everyday making. Recent technical innovations such as mobile computing, wireless networks, GPS, social media, and Web 2.0 coupled with social movements -like the rise of the Maker culture, DIY electronics, DIY fabrication and citizen science- have reframed physical/digital making in ways that put collective and participatory practices at the center of an emerging social, cultural, and economic shift. The rise in collective making of content, artifacts, and technologies has spurred new cooperative, learning, and content production models as well as new techniques and tools and a new understanding of our relationship with artifacts. Not only is everyone now a potential producer of content, artifacts, and technologies, the notion of production itself has changed to include sharing the knowledge to produce, and producing collectively.

Companies and organizations related to digital media are feeling the scaled impact of the change in what has been referred to as the "collaborative economy" by, among others, Michel Bauwens of the P2P Foundation (Synthetic Overview of the Collaborative Economy, 2012). Bauwens describes the shift as "no longer a matter of autonomous and separated corporations marketing to essentially isolated consumers, it is now a matter of deeply inter-networked economic actors involved in vocal and productive communities." Sociologist David Gauntlett challenges us to move the idea of connecting beyond Internet services to bridge the activities and organizations of the real world (Making is Connecting, 2011).

MAKE focuses broadly on the concerns of culture and entertainment, and specifically on the receptor communities of museums, game industry, and maker communities. An orthogonal problem is how these receptors adapt their work, business, and stakeholders in response to the "collaborative economy" – especially SMEs, micro-enterprises, non-profit organizations, and communities? Specific problems we tackle include, what new interpretation models and supporting technical platforms are required for museums to respond to the demand for visitor generated content? How can game designers respond to the rise in collective content making in games, particularly in locative games? How can research and maker communities that rely on prototypes collaborate together? How can game designers leverage and respond to the interests in the material properties of artifacts in the game experience?

Part E: Summarize the proposed solution and approach (1 ½ pages)

The MAKE project assumes the challenge of partnering with our receptor communities to co-research and co-develop responses to the practical needs of production and research challenges that the "collaborative economy" presents. We see our contributions as the development and research of custom and effective social, technical, and organizational platforms and tools for our receptor communities. To tackle the problems we set out in MAKE we have organized the project around three themes: 1) collective content making and storytelling; 2) making of things; 3) new approaches to research and partner collaboration.

1) Collective content making and storytelling: the shift from "consuming content" to collaborative and participatory content generation has had a broad impact on our receptors. We tackle this issue in two domains, museums and heritage, and games. We learned from the PLAYPR project that museums and games can productively influence each other through collaborative research. In MAKE, we propose four sub-projects related to this theme. Each sub-project will collaborate together and even share in proposed solutions however map their research to particular receptors that will lead to unique problem solving and approaches.

The sub-project "MAKEMuse" will develop and test technical tools and a platform for collective content-generation for a consortium of Ontario cultural institutions that is cross-disciplinary (AGO, ROM, OSC, Royal Botanical Garden). The consortium will lead the co-development of organizational practices to support the tools and platform and to work across disciplines in museums (fine art, natural history, science, and natural conservation). "COCurate" will develop software toolkits to access digital collections and allow for republishing to support co-curation of collections by communities of origin. The sub-project will look for new possibilities for indigenous self-representation in collaboration with MoA at UBC, Reciprocal Research Network, Mukurtu CMS, and partnered Canadian Aboriginal communities. The sub-project "LOCStory" aims to address the challenge of collective content generation in locative media systems that is often fragmented by the diversity of producers, and furthered fragmented by content that is linked to disconnected geographical locations. Working with receptor partners in Ottawa, Toronto, Montreal, and Edmonton, researchers will employ humanities and design approaches to link geospatial data with large narrative arcs to improve user experiences. These approaches include transmedial narratology, space syntax theories, and user-centered design.

Part E: Summarize the proposed solution and approach (continued, but only for full project LOIs)

The sub-project "DIYLoc" addresses the similar challenges of player content by geographically distant players by researching how player's own sharing and making initiatives can be supported by mobile synchronous and asynchronous audio and video while geocaching, and how this impacts the design of locative games. This sub-project is in partnership with Google.

2) Making of Things: The DIY and Maker cultures that are so intrinsic to the collaborative economy are part of a renewed focus on artifacts and our relationships to them in their making and use. We explore this renewal in the domains of DIY/maker communities and games. Considering everyone as a potential producer widens the possibilities for research through the making of artifacts and the reconsideration of the role of artifacts in new media. In the sub-project "CODesign", we will collaborate between the burgeoning communities of research through demos and prototypes and making as experimentation, to bridge academic researchers with Maker culture communities like Fablab and Maker faire groups to co-develop tools and processes. In the sub-project "DIGThings", we will engage emerging approaches to interaction and games that explore for example the idea of augmenting (material) "things" as players or agents of interaction to push the frontiers of next generation games and experiences.

3) New approaches to researcher and partner collaboration: This theme explores the orthogonal concerns of this project that impact how we conduct our research and engage our partners. We will focus on evolving models for community driven research and transfer these via community-based and networked events and sites, supplemented by international exchange and input. Receptor communities will co-lead sub-projects wherever possible, helping to set the problems and criteria for success. In partnership, researchers and receptors will gain processes and products that will help them to identify future problems and solutions but which will also, more broadly, empower an approach to cultural production within the peer-to-peer collaborative economy of producers. MAKE's receptor communities will not exclude large corporate partners (like Google) but will focus on micro and SMEs, indie game producers, cultural and community organizations, and technology producers.

Specific approaches include:

- * co-development of relevant tools, agile tool kits and skills with the organizations and communities. These products and processes may have commercial potential and be transferred as commercial or open source products depending on receptor goals but the primary aim will be to develop shareable community skills, resources and solutions.
- * use of digital and hybrid digital/traditional means that facilitate ways to broaden the discussion of problems/solutions within the receptor communities and partners. For example we have utilized research blogs, unconferences, "24 hour conferences" (24 hour blogs), video documentation and "wormholes" (24/7 video links), and trusted digital repositories in past collaborations that we will extend further in MAKE.
- * interdisciplinary methods drawn from social sciences, humanities, design, performance and art.
- * in addition to traditional research methods, MAKE sub-projects will employ research-creation methodologies that highlight process, prototypes, and resulting artifacts. For example, the production of the prototype may be a direct attempt to provide a pragmatic solution to a specific problem or may, at other times, act provocatively as a type of "feed forward" research stimulus to suggest pathways and solutions to research and problems that might not otherwise appear. In addition, researchers will use speculative design (sometimes called design fiction) methodologies to reimagine both problems and solutions.
- * co-creation workshops with partners and stakeholders drawn from participatory design, maker cultures, design jams, and game jams.
- * the co-development of an online repository, known as "alt.prototype" for research and maker prototypes and an online forum for collaborative exchange between academic researchers and maker communities.

Part F: Subprojects list up to six subprojects that will be undertaken in the first two years (only for full project LOIs).

Subproject Name (1)

MAKEMuse: Open platforms for visitor-generated content

Summary

We ask what new participatory models, techniques, and tools for heritage and cultural interpretation can be developed based on collective making? The rise in collective making of content, artifacts and technologies has spurred new cooperative, learning, and content production models as well as new techniques and tools. Participatory making holds enormous potential to reframe interpretation and experiences of heritage and contemporary culture. MAKEMuse will develop a technical and organizational platform for cultural centres, art galleries, museums, science and conservation centres that enables visitor generated content and collective models for creating relevant interpretation. In addition, the research will enhance cross-institutional and disciplinary knowledge sharing. The sub-project responds to the needs of an existing network that includes Art Gallery of Ontario, Royal Ontario Museum, Ontario Science Centre, and the Royal Botanical Gardens. GRAND researchers will partner with the expertise, audiences and stakeholders of these institutions in a cross-collaboration to develop interpretation that draws on the content and collections of the respective institutions and for their assessment of the outcomes of the sub-project. The project will begin at the start of GRAND phase 2 for a duration of three years. It will extend into a phase two that will include wider participation of more Canadian cultural institutions.

Subproject Name (2)

COCurate: First Nations Co-Curation

Summary

We explore the digitization, archiving, and circulation of First Nations cultural heritage in museum collections as spaces for applied ethnography of institutional and Indigenous collaborative media practices. New technologies have created opportunities for co-curation of collections and their representation by communities of origin. Software toolkits (like APIs) facilitate access to digital collections and the republishing of data, while digitization and circulation of collections have generated new possibilities for Indigenous self-representation, including the collaborative development of culturally sensitive systems for the archiving and management of digital heritage. GRAND researchers will focus on the production and mobilization of digital collections of First Nations cultural heritage at institutional and community scales. We will partner with curators at the Museum of Anthropology at UBC and developers of their Reciprocal Research Network, and with the developers of the Mukurtu CMS and partnering Canadian Aboriginal communities to build and evaluate culturally appropriate heritage management systems and related virtual exhibits. This sub-project will facilitate both cross-institutional and inter-community collaborations. The project will begin at the start of GRAND phase 2 for a duration of three years.

Subproject Name (3)

CODesign: Maker research and design

Summary

DIY, Maker and FabLab cultures are emerging internationally as part of a very clear shift to put tools and design agendas back in the hands of individuals and receptor groups. What can universities do when agendas and expertise, must be seen as situated outside the university as much as inside? How can universities work with different local communities to empower them to imagine themselves as creative, resourceful and self reliant? How can the university help to connect community design projects to authorities at various levels and affect policy? Specifically, CODesign will: 1. Work with local, national and international DIY organizations to provide tools and processes to local receptor communities to help identify problems and solutions in those communities. Both digital and physical tools and processes would be used in order to include people who initially lack experience with digital tools. For some groups, however, tools and processes would include e.g. use of game design to produce design fictions that identify problems and imagine solutions. 2. Co-develop, with the communities, relevant tools, agile tool kits and skills. These products/processes may have commercial potential but the primary aim will be to develop shareable community skills, resources and solutions. 3. Using digital and hybrid digital/traditional means, facilitate ways to broaden the discussion of problems/solutions within the communities and communicate this to relevant policy makers. The project will begin at the start of GRAND phase 2 for a duration of four years.

Part F: Subprojects (continued, only for full project LOIs)

Subproject Name (4)

DIGThings: Digital and analogue things in games

Summary

Innovation in digital game and experience design requires careful attention and astute reading of the material properties and interactions of digital and analogue things, if we are to produce meaningful and engaging experiences across digital-analogue objects and interfaces. Employing research creation approaches, researchers will query how games and interactions: enhance social interactions, improve communication, help us to discover new personal abilities, assist us in comprehending how objects and interfaces work; and exploit these for new socially useful, entertainment and art purposes. We will employ sonic tools, media toys, and gestural technologies, in performance, gaming, exhibition, and corporeal domains, working closely with SME industry partners, and hacker communities, exploring innovative uses of new to market digital things. Guided by speculative fiction, material culture studies and art/design methods, we imagine fantastical connections between analogue/digital things, to push the frontiers of next generation casual, family, public and new arcade style games and experiences. Our research/creation "game jam" model integrates industry and community partners in candidate projects that we iterate in 2 week to 3 months via rapid prototyping sessions. Our anticipated outcome is prototypes that might be developed by our community and industry partners into commercial products and/or community shareable resources. The project will begin at the start of GRAND phase 2 for a duration of three years.

Subproject Name (5)

DIYLoc: DIY Locative Games for Shared Geographies

Summary

This project will explore the role of player content creation in location-based games and alternate reality games from a do-it-yourself (DIY) perspective where we will answer the question: How can locative games be designed to promote the capturing and sharing of place-based knowledge and understanding between geographically-separated Canadians? We will explore how players use content creation to explore aspects of Canadian culture. This will include studies of the design and play of shared geocaching: synchronous geocaching between people who are in different locations within Canada but experiencing the activity together through shared audio and video links. We will investigate how people use geocaching to record and share their sense of place through content creation; how this understanding is shared and received during synchronous play with people in other locations across Canada; and, whether or not shared geocaching promotes a greater sense of community between geographically-separated Canadians. Project outcomes will include an understanding of: how geographically-separated Canadians can share a sense of place across distance through their own 'making' and sharing initiatives; how ubiquitous technologies aid the recording and viewing of place-based information; and, how games can be designed to support place-based knowledge sharing. The project will begin at the start of GRAND phase 2 for a duration of three years.

Subproject Name (6)

LOCStory: Locative Game Storytelling

Summary

Although artists, educators, marketers and entertainers all aim to tell compelling stories, most locative media systems function by linking content to geographically isolated hotspots, resulting in logically disconnected and thematically discontinuous user experiences. Using transmedial narratology, space syntax theories and iterative design principles, we will explore methods for building spatial stories that respond dynamically to the user's location and style of movement without sacrificing narrative continuity, and develop best practices for linking geospatial data to large narrative arcs that provide a compelling user experience. We've designed locative experiences for museums, galleries, and archives using custom authorware, including See It (Neustaedter, Wakkary), GEMS (Neustaedter), fAR-Play (Rockwell) and StoryTrek (Greenspan) platforms. We're working with colleges and universities in Canada and elsewhere to integrate locative media literacy into post-secondary curricula, and have built pervasive games and site-specific exhibits for the Virtual Museum of Canada, Radix Theatre Company, Fort Edmonton Park, Old Strathcona Business Association. By reaching out to new receptors seeking expertise in spatial storytelling for pervasive games, heritage conservation, mobile tourism, education, marketing, and public relations, we aim to position ourselves as Canada's foremost locative storytellers within three years of the start of GRAND phase 2.

Part G: Summarize how the proposed project will pursue knowledge and technology exchange and exploitation activities within the context of GRAND.

Knowledge and technology exchange will take place through the process of collaborative, community based research. As described above, MAKE will focus on receptor driven questions, needs and solutions. In some instances this will simply involve working closely with the receptor on problems/needs that they have identified in order to collaborate on a solution that they feel meets their needs. In other instances we may use community based brainstorming-and-making to identify problems/needs together with the receptor community and then co-devise solutions. Tools, artefacts and processes produced will, on the whole, be open source except where the receptor community is explicitly interested in other IP models. MAKE has a core of artists/designers and we will therefore organize a high profile exhibition event to present research processes and outcomes to the public. The goal of this exhibition will be to present to a very broad public, in a highly engaging way, the best MAKE research alongside other complementary GRAND projects (as well, possibly, as related projects from DIY communities that we are working with or want to work with). The alt.prototype repository complements this and make prototypes public in a particularly accessible way. We will hold a rotating (Vancouver, Edmonton, Montreal- Ottawa, Toronto) GRAND cafe type event each year and invite GRAND colleagues and HQP from other projects to physically meet, present and exchange to each other -and to receptors and selected members of the public.

Part H: Summarize how the project will network with other projects within GRAND.

MAKE will seek to exchange with other projects or subprojects in GRAND that have already developed, or are developing, collaborative tools and processes that can be effectively used with our receptor communities. At the same time we will make available to other projects the tools and processes we are developing, as well as those developed by PlayPR such as the fAR-Play and locative game platforms designed at University of Alberta and Carleton respectively. MAKE will build on and improve the communication models established by PlayPR: The monthly virtual research meeting will be opened up to researchers from other projects interested either in listening in or presenting. The GRAND cafe event will include all GRAND projects in a given area in order to increase awareness and communication across local projects and receptors. MAKE researchers will selectively invite other GRAND researchers to present their research in the public exhibition. Some MAKE researchers will connect with the INDIEGAME project and, given the art/deign core in MAKE, researchers and HQP are also expected to be particularly active within Digital Publics.

Part I: Summarize how one or more current or potential GRAND partners will be engaged in and benefit from the proposed research.

Larger cultural receptors such as the Art Gallery of Ontario and the Museum of Anthropology already federate a broad cross section of other community based receptor and cultural organisms. These institutions provide credibility and resources to MAKE while we contribute a fresh approach and valuable human resources to support collaborating with these communities in more substantial ways. We also connect them to others relevant receptor communities and to the GRAND network. The Ville de Montreal similarly provides underlying credibility/resources to allow university researchers access to resources and to embedded organizations in particular communities such as the Parc Extension downtown immigrant neighbourhood. Credibility, collaborative tools and processes from the Montreal experience can then be transferred to other municipalities. Our deep connections to the Mont Royal Games Society again provides credibility and access to hundreds of emerging indie game designers and small game companies. It also links us with other indie game collectives across the country (Dirty Rectangles in Ottawa and Hand-Eye Society in Toronto). We provide them with connections, exposure, resources, tools and processes to survive and thrive. Last but not least, commercial partners such as Google, Autodesk, Gesture Tech, Normative Design, Interaxon, iShailah Interactive, Stitch Media are interested in working with MAKE on specific projects that will help them understand how the collaborative economy will affect their sector.

Part J: GRAND Challenges Check all that apply and briefly describe anticipated impact	
Entertainment <input checked="" type="checkbox"/> Primary impact <input type="checkbox"/> Secondary impact <input type="checkbox"/> N/A	The broad interests of MAKE are with the entertainment and cultural industries, organizations, and communities. Collective making and content generation directly impacts our understanding of both entertainment and culture given the shifting nature of audiences. Enabled and empowered producers of culture in their own right, MAKE aims to support the co-production of entertainment and culture through an understanding and shaping of the social technologies and collective making.
Learning <input type="checkbox"/> Primary impact <input checked="" type="checkbox"/> Secondary impact <input type="checkbox"/> N/A	Games, culture, and technology each have learning components. MAKE will address significant change in the role of audience, users, and players that extend to learners. Collaborative economies hold strong implications for education that lead to a stronger foundation in peer-to-peer knowledge and practice sharing.
Healthcare <input type="checkbox"/> Primary impact <input type="checkbox"/> Secondary impact <input checked="" type="checkbox"/> N/A	
Sustainability <input type="checkbox"/> Primary impact <input checked="" type="checkbox"/> Secondary impact <input type="checkbox"/> N/A	Our focus on micro-enterprises, SMEs, non-profits, and communities in the midst of change are ultimately measures to ensure sustainable responses to shifts in clients, stakeholders, and practitioners who on some level take part in or are impacted by collective and participatory making.
Big Data <input type="checkbox"/> Primary impact <input type="checkbox"/> Secondary impact <input checked="" type="checkbox"/> N/A	
Work <input type="checkbox"/> Primary impact <input checked="" type="checkbox"/> Secondary impact <input type="checkbox"/> N/A	The implications of MAKE lead to shifts in organizational approaches and workplace practices. Sub-projects like "MAKEMuse" explicitly targets organizational structures in response to the sharing of interpretation and cross-disciplinary collaboration but all the sub-projects will, in one way or another, focus on shifting the emphasis from researching for receptor communities to researching with them.
Citizenship <input type="checkbox"/> Primary impact <input checked="" type="checkbox"/> Secondary impact <input type="checkbox"/> N/A	MAKE's emphasis on the receptor based DIY/Maker model is based on the fact that new technologies are enhancing the ability, even of marginalized individuals and communities, to participate socially, culturally and economically.
Other <input type="checkbox"/> Primary impact <input type="checkbox"/> Secondary impact <input checked="" type="checkbox"/> N/A	