

NEH Application Cover Sheet

Digital Humanities Start-up Grants

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Field of Expertise: Philosophy: Logic

INSTITUTION

Georgia Tech Research Corporation
Atlanta, GA UNITED STATES

APPLICATION INFORMATION

Title: *Online Deliberation in the AGORA-net*

Grant Period: From 8/2014 to 8/2015

Field of Project: Philosophy: Logic

Description of Project: The project will (1) develop the AGORA software into a deliberation infrastructure that can revolutionize research, teaching, and learning in philosophy and all those areas of the humanities and beyond, (2) promote this new deliberation infrastructure so that philosophers worldwide and eventually everybody start using it, and (3) assess both the adoption of AGORA-net in the targeted user communities, the quality of AGORA-net as a deliberation infrastructure, and the value of this infrastructure for its users.

BUDGET

Outright Request	\$60,000.00	Cost Sharing	\$6,270.00
Matching Request	\$0.00	Total Budget	\$66,270.00
Total NEH	\$60,000.00		

GRANT ADMINISTRATOR

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Online Deliberation in the AGORA-net

A Level II Start-Up Project

proposed by the Center for Ethics and Technology at Georgia Tech

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1. List of Participants

Michael Hoffmann, Project Director	Georgia Institute of Technology
Jason Borenstein	Georgia Institute of Technology
C. K. Gunsalus	University of Illinois Urbana-Champaign
Michael Decker	Karlsruhe Institute of Technology, Germany
Vitaly G. Gorokhov	Russian Academy of Science, Moscow
Suzanne McMurphy	University of Windsor, Canada

Advisory Board members:

Chris Reed	University of Dundee, Scotland
Noëlle McAfee	Emory University
Jane Maienschein	Arizona State University
Mark Aakhus	Rutgers University
Patrick L. Scully	Clearview Consulting, LLC

2. Abstract

Reacting to the need for efficient, better structured, farther reaching, and more inclusive deliberation in a globalized world, the project will (1) transform the existing argument visualization software AGORA-net into a freely on the Internet usable deliberation infrastructure; (2) it will promote this new infrastructure by creating “portals” on our partners' websites, by organizing the so-called “TechDebates” on the ethics of emerging technologies, and by using listservs of a variety of research communities to invite readers to watch the TechDebates online and to direct them to AGORA-net as a place on the web to create arguments on ethical issues of the emerging technologies debated, or to contribute with support or objections to existing arguments; and (3), the project will assess the adoption of AGORA-net in the targeted user communities, the quality of AGORA-net as a deliberation infrastructure, and the value of this infrastructure for its users.

[Statement of Innovation](#)

By transforming a software that has been developed for educational purposes into a large-scale deliberation infrastructure, the proposed project is a first step to fundamentally change a central component of knowledge production: the justification of theses and recommendations. Instead of the traditional four-step process of writing, publishing, debating, and new writing with its clear distinction between individual and social activities, AGORA-net allows synchronous collaboration throughout.

[Statement of Humanities Significance](#)

A thorough understanding of arguments, the development of systems to represent arguments, and providing opportunities to train the construction and critique of arguments are some of the most important contributions of philosophy to human flourishing. The development of AGORA-net contributes to this tradition, and it contributes to the humanities by providing a tool that facilitates the collaborative construction of arguments in research and the training of argument construction in education.

3. Narrative (Level II Project)

Confronted with overwhelming information and complexity, global interconnectedness, and dependence on other disciplines, we need more efficient, better structured, faster, farther reaching, and more inclusive communication and deliberation. Reacting to this need, we intend to provide proof of concept for an innovative online deliberation infrastructure, called AGORA-net.

The AGORA-net *infrastructure* will be built on the AGORA *software*—a web-based and collaborative argument visualization tool—which is currently in its last stage of development, funded by a grant from the U.S. Department of Education. The proposed project pursues **three goals**: development, promotion, and assessment. First, the project will **develop** the AGORA *software* into a deliberation *infrastructure* that can revolutionize research, teaching, and learning in all areas (academic and beyond) in which the construction of arguments and the collaborative and adversarial exchange of arguments plays a crucial role. The AGORA-net infrastructure should provide the means for an entirely new mode of communication and deliberation (Hoffmann, Resubmitted w/ revisions): two-dimensional argument maps that anybody can create and to which everybody can contribute with additional arguments, counterarguments, and counter-counterarguments. Argument maps promote focus on the logical justification of positions, allow synchronous and asynchronous deliberation in collaborative and adversarial settings, and can grow without limits in digital space on the Internet.

Second, the project will **promote** this new deliberation infrastructure so that philosophers all over the world, and eventually everybody who needs tools for individual and collaborative construction of justifications, can start using it. Promotion is essential. It does not help to have an innovative tool if nobody knows about it or is not familiar with its usefulness. We hope to ignite a new interest in the construction of arguments and rational deliberation that might inspire further research on collaborative argument mapping on the Internet, the improvement of AGORA-net, and the development of new digital tools.

Third, the project will **assess** the adoption of AGORA-net in the targeted user communities, the quality of AGORA-net as a deliberation infrastructure, and the value of this infrastructure for its users. Such an assessment is crucial to inform the further development of the AGORA deliberation infrastructure before a wider implementation is pursued.

The project is an initiative of Georgia Tech's Center for Ethics and Technology (CET). CET will ensure its long-term sustainability.

(a) Enhancing the humanities through innovation

Justifying positions by means of arguments is essential for scholarship. This is the reason why there is widely shared agreement that the ability to create arguments should be an essential goal of education (Kuhn, 1991, 1993; National Research Council, 2008; Osborne, 2010; Schwarz & De Groot, 2007; von Aufschnaiter, Erduran, Osborne, & Simon, 2008; Zohar & Nemet, 2002). Moreover, the ability to construct arguments is also crucial for democratic decision making, as has been emphasized in theories of "deliberative" or "participatory democracy" (Dryzek, 2000; Fischer, 2003; Gastil & Levine, 2005; Hajer & Wagenaar, 2003). "Processes of deliberation take place in argumentative form," writes Jürgen Habermas (Habermas, 1996 <1992>, 305). Arguments are crucial because only "the unforced force of the better argument" can guarantee the reasonableness of deliberation and thus the "legitimizing force" of deliberative politics (306, 304).

The challenge to structure deliberation in the political arena is paradigmatic for the challenge that we face in global and interdisciplinary communication in the academic world. In both areas the question is how large-scale deliberation across many cultural and disciplinary divides is possible. There is not only the *quantitative* challenge of how to structure meaningful deliberation among potentially millions of people,

but also the *qualitative* challenge that many people—including students—simply do not know how to create a clearly structured argument. The very possibility of deliberation is in question when we assume that the following observation regarding citizen participation in a well-established public body in Sao Paulo is neither unique to Brazil nor to the public sphere: “The tendency of citizen representatives to construct their arguments in a way that is regarded as unstructured, combined with their focus on highly localized issues, makes their speeches appear unclear, emotional, disruptive, or irrelevant to most representatives of the other sectors . . . To enable underprivileged groups to express themselves effectively in participatory forums, specific methodologies aimed at fostering the abilities of participants with less technical expertise and communicative resources need to be devised and adopted” (Coelho, Pozzoni, & Montoya, 2005, 181).

AGORA-net has the potential to revolutionize the practice of creating arguments in a variety of ways. First, the *graphical structure* of argument “maps” can support efforts to cope with complexity (Kirschner et al., 2003; Okada et al., 2008). If we conceptualize complexity as the experience of feeling overwhelmed by a multitude of ideas, data, knowledge, assumptions, and so on, then argument mapping can be seen as a means of empowerment. AGORA-net challenges users to focus on inferential relations between statements and the overall structure of complex argumentations, and helps them to develop those relations and structures, and promotes reflection on these crucial components of rationality. Second, the *user guidance* that is provided in the AGORA software facilitates the construction of arguments. Third, by always focusing on the justification of one position by a network of reasons, an argumentation is always *well structured* and it is clear on which assumptions it is based.

Furthermore, as a software tool that is designed for *collaboration*, AGORA-net can substantially change communication and workflow. By overcoming boundaries of space and time and those between individual and social activities—because any argument can immediately be criticized or improved after it has been created—argument mapping on the internet can foster more collaborative modes of knowledge production and exchange. AGORA-net provides an online-infrastructure in which everybody can develop arguments for positions, recommendations, or theses, or can contribute to debates with further arguments or counterarguments. It is a step to what has been envisioned as a “World-Wide Argument Web” (Rahwan, Zablith, & Reed, 2007). See Appendix A for two examples of AGORA argument maps.

(b) Environmental scan

AGORA-net is one of many computer supported argument visualization (CSAV) tools. It is unique, however, with regard to those software features that are required or recommended for large-scale online deliberation. Other CSAV tools can be grouped as follows, whereby each group represents one set of deficiencies.¹ Appendix B provides for each of the following groups a list of examples.

1. *Single user applications*. User can either download software on a specific computer or use it online (or both), but no online collaboration is possible. These CSAV tools do not allow deliberation.
2. *Linear presentation of arguments and objections*. These CSAV tools keep the usual textual form. Diagrammatic tools such as AGORA-net that allow two-dimensional presentations of arguments are better suited to visualize the entire structure of more complex argumentations.

¹ This overview builds on a review on the “state of the art” by Scheuer, Loll, Pinkwart, & McLaren (2010) and an overview produced by Maralee Harrell (http://www.phil.cmu.edu/projects/argument_mapping/). We exclude those tools that are no longer available online and include some that have been developed in the meantime.

3. *Loose constraints.* These systems are based on a very broad and often unspecific understanding of “argument” or focus only partially on arguments and argumentations in the philosophical sense of these terms.² Examples include CSAV tools that focus more on “issues” and integrate the presentation of things like “ideas,” “questions,” and “tasks,” or those that focus on “dialog mapping” (Conklin, 2006) or knowledge presentation (Okada, Buckingham Shum, & Sherborne, 2008). LASAD, for instance, which is currently the only CSAV tool besides AGORA-net that allows online collaboration on argument maps, is primarily a tool to create tools. It allows instructors to configure their own CSAV tools, or to use a variety of different approaches to arguments in a single software framework. Many of these systems allow also to put something on the screen without relating it to something else, or to relate text boxes without specifying the kind of relation. This has the tendency to confuse users.

Currently, AGORA-net seems to be the only CSAV tool that is collaborative, allows diagrammatic representations, and provides users with a clear framework of constraints and rules.

(c) History and duration of the project

The project is part of a research program that started from Charles Peirce’s concept of “diagrammatic reasoning.” According to Peirce, reasoning by means of external, mostly graphical representations, has cognitive advantages that are crucial for creativity, learning, and self-reflection (Hoffmann, 2003, 2004, 2007, 2011c; Stjernfelt, 2007). In the process of representing our thinking in visible form, experimenting with these representations, and observing the results of these experiments, we can discover implications of our reasoning and generate new ideas.

This research argued in particular that these cognitive advantages of diagrammatic reasoning depend on the availability of systems of representations that constrain both the construction and the experimentation with diagrams. If there are no constraints and any construction and interpretation is possible, then the diagram does not “stand up” against preconceptions and habits of thinking (Hull, 1994).

Based on these results, the PI developed “Logical Argument Mapping” (LAM) as a system of representation that was specifically designed to promote creativity, learning, and self-reflection in public deliberation on complex issues such as climate policies (Hoffmann, 2011b), and in the management of conflicts that appear to be intractable based on the fact that the parties to the conflict frame the perception of the conflict differently (Hoffmann, 2005, 2011a). This prior work on LAM enabled us to win a grant from the U.S. Department of Education by which we implemented, on the one hand, LAM in the CSAV tool AGORA-net and, on the other, showed how the software can be used to structure collaboration in “problem-based learning” (PBL) environments (Hoffmann & Borenstein, 2013; <http://agora.gatech.edu/>, funded by FIPSE grant P116S100006, 2010 - 2014).

This proposed one-year project will transform the AGORA software into a deliberation infrastructure. If we can show that our approach has value for philosophy, the humanities, and beyond, we plan to pursue grant opportunities that can support the implementation of AGORA-net on a larger scale, such as NEH’s Digital Humanities Implementation Grants. The AGORA-net infrastructure will be maintained and used by the Center for Ethics and Technology for ongoing deliberation on the themes of the TechDebates.

² *Argument*: a set of statements—a claim and one or more reasons—where the reasons jointly provide support for the claim; *argumentation*: a set of arguments in which the reasons of an argument are either justified by further arguments or criticized by counter-arguments.

(d) Project Activities

The proposed project pursues three goals: (1) to further develop the AGORA software into a deliberation infrastructure; (2) to promote the usage of this infrastructure by organizing exemplary deliberation projects; and (3) to assess the question whether this innovative deliberation infrastructure has indeed the potential to revolutionize research, teaching, and learning in philosophy, the humanities in general, and other areas in which the construction of arguments plays a crucial role.

1. The project's development activities include:

- Create a well-structured entry area, a “foyer” to AGORA-net that allows access to and navigation in a “World of Arguments.” Currently argument maps are organized by topic. What is needed is a variety of access options for different user groups (e.g., scientists v. high school students) and for varying user goals.
- Develop portals on our collaborators’ web pages to AGORA-net that are designed specifically for their needs and interests. We plan to create a first prototype of such a portal for Georgia Tech’s Center for Ethics and Technology and its new initiative “Online Deliberation on the Ethics of Emerging Technologies.” Further portals will be created on the websites of our collaborators: the National Center for Professional and Research Ethics (NCPRE = EthicsCORE); the Institute for Technology Assessment and Systems Analysis (ITAS) at Karlsruhe Institute of Technology (KIT) in Germany; and the Center for Philosophy of Technology and Engineering Ethics in the Institute of Philosophy of Russian Academy of Sciences.

2. Activities that pursue the second goal of promoting AGORA-net as a deliberation infrastructure include mainly the following:

- Negotiate with leading stakeholders in the humanities all over the globe to establish additional portals that allow access to AGORA-net from their homepages.
- Initiate a series of online deliberation projects in connection with the TechDebates on the ethics of emerging technologies which the Center for Ethics and Technology (CET) starts this year. TechDebates is a series of live events with host at Georgia Tech and two (online) debaters that will be video-recorded and uploaded, just as the famous TED talks, to YouTube and other sites. The TechDebates focus on themes such as lethal autonomous robots, neuro-engineering, and geo-engineering. CET plans to organize three TechDebates per semester. The project will advertise the last one in Nov. 2014 and three further ones in the spring of 2015 through a wide range of listservs of professional societies and communities interested in ethics and technology. Emails through each of the listservs will not only inform readers about the upcoming TechDebate, but will also direct them to one of the four portals of our collaborators and CET with an invitation to prepare the TechDebates—for example with their students—by creating argument maps for certain positions in AGORA-net, or to contribute in debates on existing argument maps.
- Create argument maps for these themes in group projects in classes at the University of Windsor and at Georgia Tech well in advance of these advertising campaigns in order to motivate incoming users to participate in deliberation.

3. Assessment focuses on two sets of questions; each of them will be answered by specific activities:

- Assess AGORA-net adoption and effectiveness of promotional strategies. In correspondence to specific events, the project will count, on a bi-weekly basis, how many new users register, how many new argument maps are created, how many text boxes the creator of an argument map creates on this map, how many supporting text boxes other users create on this map, how many objections are added to a map, how many other types of entries are added, and how many users

enter the AGORA Flash application at <http://agora.gatech.edu/release/English.html> through each of the four portals: CET; EthicsCORE; ITAS; and RAS.

- Assess the quality of AGORA-net as a deliberation infrastructure, and the value of this infrastructure for its users by performing, a survey. The survey will have a Likert scale set of questions, a free response set of questions, and an open comment section.

(e) Work plan

Table 1: Schedule of activities (TD = TechDebates)

Month	Develop	Promote					Assess
		TD 1	TD 2	TD 3	TD 4	Other	
Aug '14	D1	P1					A1
Sept '14	D1-D3	P1					A2
Oct '14	D1, D4	P1-P4	P1				A2, A3
Nov '14	D1	P1, P3-P6	P1				
Dec '14	D1		P1-P4	P1			
Jan '15	D5		P1, P3-P6	P1			
Feb '15	D5			P1-P4	P1		
Mar '15	D5			P1, P3-P6	P1	P7	
Apr '15	D5				P1-P4		
May '15	D5				P1, P3-P6		
Jun '15	D5						A4-A6
Jul '15	D5					P8	A4, A6

Table 2: Description of activities and staff involved (acronyms for staff are explained in Section 3.f)

	Activity	Table 2—Description of Activities and Staff Involved	Staff
Development	D1	Create foyer within AGORA-net for a World of Arguments.	GRA, URA, PI
	D2	Create portal for CET as a prototype for all portals.	URA, PI
	D3	Conceptualize portal features specific for collaborators' web pages.	GRA, PI, Coll.
	D4	Create portals to AGORA-net on collaborators' web pages.	URA, PI, Coll.
	D5	Software maintenance, debugging, and re-designing from feedback.	URA, PI
Promotion	P1	Prepare TechDebate on issue {X, Y, Z, S}.	GRA, PI, JB
	P2	Prepare class projects about issue {X, Y, Z, S}.	GRA, PI, SM
	P3	Classes create a series of argument maps on issue {X, Y, Z, S}	SM, PI
	P4	Prepare promotional campaign for AGORA-net through listservs.	GRA, PI
	P5	Promote public deliberation at TechDebates and AGORA-net through invitations on listservs and to professional organizations.	GRA, PI

	P6	Hold TechDebate.	GRA, PI
	P7	Present project at NEH planning meeting.	PI
	P8	Sent notice about White Paper, with link, to listservs.	GRA, PI
Assessment	A1	Conduct formative evaluation with collaborators/Advisory Board.	all
	A2	Develop survey instrument.	GRA, PI
	A3	Embed survey instrument in AGORA-net.	URA, PI
	A4	Analyze results of survey.	GRA, PI
	A5	Present results to collaborators/Advisory Board; request feedback.	all
	A6	Write "Lessons Learned" White Paper for NEH DH Lab website.	GRA, PI

(f) Staff

Michael Hoffmann (PI). Dr. Hoffmann will be responsible for, and actively involved in, all components of the project and for supervising the graduate and undergraduate research assistant. He will conduct weekly meetings with both to monitor their work. His time commitment to the project will be about ten hours per week during the entire project time.

Jason Borenstein (JB). Dr. Borenstein will assist with the project by helping to identify speakers and prepare for the four TechDebates. His time commitment will be about 20 hours overall.

The individuals below are responsible for the development of portals to AGORA-net on their web pages. Our undergraduate coders will work with these individuals and their web developers to design a portal that fits to the web presence of the organizations they represent. For each, the overall time commitment will be about 20 hours over the entire project duration.

- **C. K. Gunsalus (Coll.).** National Center for Professional and Research Ethics (NCPRE) / EthicsCORE: <http://nationalethicscenter.org/>
- **Michael Decker (Coll.).** Institute for Technology Assessment and Systems Analysis (ITAS) at Karlsruhe Institute of Technology (KIT) in Germany: <http://www.itas.kit.edu/>.
- **Vitaly G. Gorokhov (Coll.).** Center for Philosophy of Technology and Engineering Ethics in the Institute of Philosophy in the Russian Academy of Science: http://eng.iph.ras.ru/ph_techn.htm.

Suzanne McMurphy (SM). Assistant Professor, School of Social Work, University of Windsor. Dr. McMurphy will collaborate by having a class at the University of Windsor create argument maps on the issues around which the TechDebates are centered.

At Georgia Tech, we plan to fund **one graduate student (GRA) and two undergraduate students (URA)**. The graduate student will be funded for nine months and be responsible for the conceptual work underlying the development portions of our project, as well as the promotion and assessment activities. The undergraduate students will be funded for 320 hours total, and will be responsible for all coding activities.

(g) Final product and dissemination

The AGORA-net software code is open source. See Section 6. Data Management Plan.

(h) IRB approval

The assessment component of this project will involve human subjects. Approval of this research by Georgia Tech's Institutional Review Board (IRB) is pending and will be provided upon receipt.

Applicant Institution: Georgia Tech Research Corporation
Project Director: Dr. Michael Hoffmann
Project Grant Period: 08/17/14 - 08/16/15

BUDGET FORM	Computational Details/Notes	(notes)	Year 1	(notes)	Project Total
			08/17/2014-- 08/16/2015		
1. Salaries & Wages					
Michael Hoffman	Academic Yr Salary: \$10551/month x 1.25	13.88%	\$13,188 %		\$13,188
Grad Research Assistant	\$1326/month	75%	\$11,934 %		\$11,934
Undergrad Res. Assistant	\$15/hr x 320 hrs.	%	\$4,800 %		\$4,800
2. Fringe Benefits					
FT Employee		28.5%	\$3,759		\$3,759
Grad Health Benefits		1.9%	\$227		\$227
3. Consultant Fees					
					\$0
4. Travel					
Domestic	1 NEH Trip (airfare: \$450; per diem: \$400; local transport: \$165)		\$1,015		\$1,015
5. Supplies & Materials					
Software License	software development		\$500		\$500
6. Services					
					\$0
7. Other Costs					
Grad Tuition Remission	\$1353.24 x 9 months		\$12,179		\$12,179
8. Total Direct Costs	Per Year		\$47,602		\$47,602
9. Total Indirect Costs					
	35% Per Year		\$12,398		\$12,398
10. Total Project Costs	(Direct and Indirect costs for entire project)				\$60,000

11. Project Funding	a. Requested from NEH	Outright:	\$60,000
		Federal Match Funds:	\$0
		TOTAL FROM NEH:	\$60,000
This amount only is offered as cost-share and represents unrecovered indirect costs only, pending NEH approval.			
	b. Cost Sharing	Applicant's	\$6,270
		Third-Party	\$0
		Project Income:	\$0
		Other Fed Agencies:	\$0
		TOTAL COST SHARE:	\$6,270
12. Total Project Funding			\$66,270

5. Biographies

[Michael Hoffmann, Project Director](#)

Dr. Hoffmann is Associate Professor for Philosophy in, and currently Interim Chair of, the School of Public Policy at the Georgia Institute of Technology, Director of the AGORA Project, and Co-Director of Center for Ethics and Technology. His research focuses on the question of how creativity, cognitive change, and learning can be stimulated and guided by constructing diagrammatic representations, and by experimenting with those representations. Since 2004, he is developing “Logical Argument Mapping (LAM),” a method and diagrammatic system of representation that is supposed to fulfill an analytical and an interventional function (see <http://lam.spp.gatech.edu/>). The analytic function of LAM refers to facilitating both the understanding of complex texts and problems, and to clarifying one’s own position. And the interventional function refers to facilitating conflict negotiations, problem solving in social settings, and processes of deliberation. Most recently has been implemented in the web-based and interactive software AGORA-net: Participate - deliberate! Michael Hoffmann’s research has been published in leading journals in philosophy, conflict management, argument theory, and ethics education.

[Jason Borenstein, CET](#)

Jason Borenstein, Ph.D., is the director of Graduate Research Ethics Programs and co-director of the Center for Ethics and Technology. He is also an assistant editor of Science and Engineering Ethics and co-editor of the Stanford Encyclopedia of Philosophy's Ethics and Information Technology section. His research interests include bioethics, engineering ethics, robotic ethics, and research ethics. Dr. Borenstein's work has appeared in various journals including AI & Society, Communications of the ACM, the Journal of Academic Ethics, Ethics and Information Technology, IEEE Technology & Society, Accountability in Research, and the Columbia Science and Technology Law Review.

[C. K. Gunsalus, NCPRE / EthicsCORE](#)

C. K. Gunsalus (Gun-SAY-liss) is Director of the National Center for Professional and Research Ethics, Professor Emerita, of Business and Research Professor at the Coordinated Sciences Laboratory at the University of Illinois Urbana-Champaign. At Illinois, she taught Leadership and Ethics in the MBA program and developed and led the required Professional Responsibility course for undergraduates in Business. She has served as Special Counsel in the Office of University Counsel and Professor in the Colleges of Medicine and Law. For many years as Associate Provost, her responsibilities included department head training/support, academic policy interpretations and revision, oversight of the discrimination and harassment grievance procedures, problem personnel cases and membership on the workplace violence team. She has worked in technology transfer, managed conflicts of interest and human subject protection, as the campus Research Standards Officer with responsibility for responding to allegations of professional misconduct by faculty and students. A licensed attorney, she graduated Magna Cum Laude from the University of Illinois College of Law. She was a member of the United States Commission on Research Integrity and chaired the American Association for the Advancement of Science (AAAS) Committee on Scientific Freedom and Responsibility. She was elected a Fellow of the AAAS in recognition of her “sustained contributions to the national debate over improving the practical handling of ethical, legal, professional and administrative issues as they affect scientific research.” She is a member of the Illinois Supreme Court’s Commission on Professionalism, and written a book published by the Harvard University Press, *The College Administrator’s Survival Guide* (2006) and is under contract for a book on ethics for the Press.

[Michael Decker, Karlsruhe Institute of Technology \(KIT\) in Germany](#)

Dr. Michael Decker is Professor for Technology Assessment at the Institute for Philosophy of Karlsruhe Institute of Technology (KIT) in Germany and vice-director of the Institute for Technology Assessment and System Analysis (ITAS) at the KIT. He is the spokesperson of the German Speaking Network of Technology

Assessment (NTA), spokesperson for the Topic “Key Technologies and Innovation Processes” in the Helmholtz Program “Technology, Innovation and Society,” and Member of the advisory board “Society and Technology” of the Association of German Engineers (VDI). He did his PhD in physics at the university of Heidelberg and a habilitation in Technology Assessment at the University of Freiburg with a study on interdisciplinary research for technology assessment. Before coming to the KIT, Decker worked as scientist at the German Aerospace Center (DLR) in Stuttgart and at the Europäische Akademie GmbH in Ahrweiler. Main research areas include: Theory and methodology of technology assessment (TA); TA of new and emerging sciences and technologies; epistemology of inter- and transdisciplinary knowledge. Contact details: [www.its.kit.edu](http://www.itas.kit.edu).

[Vitaly G. Gorokhov, Russian Academy of Science](#)

Dr. Gorokhov is Professor at the Institute of Philosophy in the Russian Academy of Sciences, Russia, Professor in the Faculty of Philosophy at Lomonosov Moscow State University, Russia, and Professor for Philosophy in the Institute of Technology Assessment and Systems Analysis at the Karlsruhe Institute of Technology, Germany. At the Russian Academy of Sciences he is Head of the Research Center for Philosophy of Technology and Engineering Ethics. His research focuses, on the one hand, on Philosophy of technology and engineering ethics: technology assessment and engineering ethics as applied philosophy of technology; engineering ethics in the information or knowledge society; technological risks and engineering ethics. On the other hand, it focuses on historical epistemology: the history of science and technology, especially engineering sciences and techno-science, from a philosophical point of view.

[Suzanne McMurphy, University of Windsor](#)

Suzanne M. McMurphy, Ph.D., MSS, MLSP, is an Assistant Professor in the School of Social Work at the University of Windsor where she has been responsible for the implementation of the new Master of Social Work/Juris Doctor dual degree program. Within this program she has created an integrated curriculum on advanced research and policy analysis combining social science and law perspectives. She has also incorporated the use of on-line simulations for developing Theory of Change arguments using resources such as those through the Center for Theory of Change (<http://www.theoryofchange.org/toco-software/#2>). Her interest in the analysis of ethical conflicts began as a Fulbright Scholar to Sweden where she compared values frameworks used to justify variations in child welfare juvenile justice systems internationally. Since then, she has continued to explore the use of simulation and technology in training professionals to evaluate policy initiatives and assess the ethical implications of policy and program initiatives. Her research has been funded by the National Institute of Justice and the National Institutes of Health.

[Advisory Board](#)

Project activities will be monitored by an Advisory Board that will provide formative evaluation, that is evaluation and feedback that will inform and shape the design of essential project components in an ongoing process. The following colleagues have agreed to serve on the Advisory Board: Prof. **Chris Reed**, Head of Research in the School of Computing at the University of Dundee, Scotland, and Director of <http://www.arg.dundee.ac.uk/>, the Argumentation Research Group; Prof. **Noelle McAfee**, Philosophy Department at Emory University, Co-director of the Public Philosophy Network (<http://publicphilosophynetwork.ning.com/>); Prof. **Jane Maienschein**, Director of the Center for Biology and Society at Arizona State University, and Co-Director of the Embryo Project Encyclopedia **Patrick L. Sully**, Ph.D., Director, Participedia (<http://participedia.net/>), President, Clearview Consulting, LLC; Prof. **Mark Aakhus**, PhD, Associate Professor, School of Communication & Information, Rutgers University.

6. Data Management Plan

Data to be generated

Data generated or collected for this project will be of five types: (1) AGORA-net software code; (2) reports; (3) AGORA argument maps created by users; (4) AGORA user contribution counts and counts of entries to <http://agora.gatech.edu/release/English.html> (the genuine AGORA Flash application) from each of the four portals on our partners' websites, and (5) answers to survey questions.

(1) The AGORA-net software code is published and remains published for the software versions created in this project under the Affero GPL (v3 or later) Open Source license (see <http://www.gnu.org/licenses/agpl.html>). The software's source code is permanently available, without any restrictions, on GitHub, a publicly accessible code repository (<https://github.com/MichaelHoffmann/AGORA>).

(2) The White Paper on "Lessons learned" that will be written at the end of the project will be published on the NEH website and / or the Digital Humanities Lab website (<http://dhlab.lmc.gatech.edu>). Publication or dissemination of the final project report to NEH is at the discretion of the NEH.

(3) Users are encouraged to create argument maps in the publicly accessible AGORA-net, not in "Projects" to which only members have access. The proposed project will only analyze maps that are publicly available in accordance with IRB protocols. The AGORA application is so designed that users can create maps and can contribute to maps only if they register. They can only register if they agree to the AGORA-net "Terms of Service." These Terms include the sentence: "Every entry that is not stored in a protected project is publicly visible, as is the user name that you create in the process of registration." This means every map or part of a map can be quoted (for example by screen shots) just as any other published material. The creator of an argument map can delete his or her map, or can move it into a private space or protected project, at any time. Everybody who contributes something to a published map--and only this person--can delete his or her own entry as long as no further entries are added to this entry.

(4) The following data will be collected for the assessment part of our project. Project staff will count how many new users register, how many new maps are created, how many text boxes the creator of an argument map creates on this map, how many supporting text boxes other users create on this map, how many objections are added to a map, how many other types of entries are added, and how many users enter the AGORA Flash application at <http://agora.gatech.edu/release/English.html> through each of the four portals: CET; EthicsCORE; ITAS; and RAS. These numbers will be collected at two-week intervals starting the first Monday after the beginning of the project up to the end of the project 12 months later. In accordance with IRB protocols, no identifying information will be collected. While every user entry in AGORA-net is stored, in compliance with Georgia Tech's Data Protection Safeguards (see http://www.oit.gatech.edu/sites/default/files/GIT_Data_Protection_Safeguards.pdf), in the AGORA database, the project will not store any data regarding specific user entries.

These data will be collected for three purposes: to assess the degree of adoption of AGORA-net in the targeted user communities over time; to assess the degree of collaboration and debate that is stimulated by the AGORA-net deliberation infrastructure; and to better understand the effectiveness of different promotional strategies in correspondence to specific events. During the project period we plan to have four TechDebates, create four portals with our collaborators, and send out additional promotional emails through professional societies and listservs that are related to the humanities (see Work Plan for more information). Emails through each of the listservs will direct readers to one of the four portals.

All of these data will be shared with our collaborators and advisory board during the project and, within the retention period (see below), on request with anybody interested in these data. Aggregated data of this kind will be published in the White Paper (see 2 above).

(5) In order to assess the quality of AGORA-net as a deliberation infrastructure, and the value of this infrastructure for its users, a survey using mixed methods will be performed. The survey will have a Likert scaled set of questions, a free response set of questions, and an open comment section. The survey will be provided to AGORA users via an embedded frame in AGORA. During the collection of answers to these survey questions and comments no personal data of users or identifying information will be stored.

All of these survey data will be shared with our collaborators and advisory board during the project and, within the retention period (see below), on request with anybody interested in these data. Aggregated data of this kind will be published in the White Paper (see 2 above).

Period of Data Retention

The raw data of type (4) and (5) above will be retained for 5 years beyond the completion of the project. AGORA argument maps created by users and contributions of users to published maps (3) are not controlled or managed by the project. There are no plans to change the open source character of the AGORA software in the future (1). The White Paper that will be published on NEH's website and / or the Digital Humanities Lab website (<http://dhlab.lmc.gatech.edu>) and the reports to NEH (2) are the responsibility of NEH.

Data Formats and Dissemination

The raw data of type (4) and (5) above will be processed in R and shared openly with our collaborators and advisory board during the project, with the Digital Humanities Lab and NEH in its final stages, and on request by anybody interested within the data retention period. The White Paper that will be published on NEH's website and / or the Digital Humanities Lab website (<http://dhlab.lmc.gatech.edu>), and the project grants NEH permission to publish the final project report. The AGORA software is and will be written in ActionScript and is published on GitHUB.

Data Management and Maintenance

The PI of the project, Dr. Michael Hoffmann, is responsible for all the components of data management and maintenance outlined above.

Facilities, Equipment and Other Resources

Georgia Tech will provide state-of-the-art office computers and servers to ensure fulfillment of this proposed project. All appropriate computer software will be made available. The School of Public Policy has its own computer technical support staff to ensure all computers are properly maintained and functional at all times, including IT security. Georgia Tech will provide the project team modern office space, furniture and all associated accessories and supplies to ensure a fully functional research team.



Australian
National
University



JOHN S. DRYZEK
PROFESSOR

CENTRE FOR DELIBERATIVE DEMOCRACY & GLOBAL GOVERNANCE
SCHOOL OF POLITICS & INTERNATIONAL RELATIONS
COLLEGE OF ARTS AND SOCIAL SCIENCES
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<http://deliberativedemocracy.anu.edu.au>

7 September 2013

Michael Hoffman
School of Public Policy
Georgia Institute of Technology
685 Cherry St NW
Atlanta, GA 30332
USA

Dear Professor Hoffman,

I write in support of the application of the Center for Ethics and technology for a NEH Digital Humanities Start-Up Grant. The AGORA-net project promises a major contribution to the infrastructure for effective online deliberation. While there has been a lot of interest around the world in recent years concerning online deliberation, there is a significant unmet need for the infrastructure that would enable this to happen effectively. AGORA-net promises to meet this need. The project can build on software that has already been developed, and so we can be confident of its success. The project has my full and enthusiastic support.

Yours sincerely,

John S. Dryzek
Distinguished Professor
Australian Research Council Federation Fellow

September 9, 2013

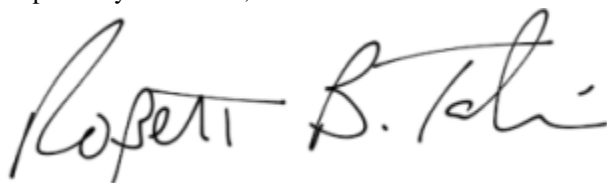
Dear National Endowment for the Humanities,

I was recently contacted by Professor Michael Hoffmann about the online tool (AGORA-net) that he and the Center for Ethics and Technology at Georgia Tech have been developing for large-scale online deliberation. I was admittedly skeptical of the project at first, but I then visited the AGORA-net site and was very impressed and deeply encouraged. The argument-mapping techniques employed in the site are rigorous and intuitive—it's so important when teaching argumentation to help students develop skills in tracking their own commitments (viz., what they see as premises, and what they take to be a conclusion) and the varied relations that obtain among them. The argument-mapping tool is then integrated with an interactive chat function, allowing many people to debate, exchange arguments, and criticize each other's views. This feature seemed to me also well-developed.

The AGORA-net project is important because popular political communication is increasingly conducted on the Internet, and almost entirely argument-driven. There is, in short, no longer "reporting"—every report is recognized to implicate or further an argument of one kind or another. This is as it should be. But the new communication technology has changed our political discourses in ways that place new burdens on citizens and create new means for manipulation, misdirection, and bewilderment. It is plausible to think that training in argumentation can help accentuate the good and minimize the bad that technology has brought. Accordingly, many theorists of democracy have recently proposed "deliberative" models for democratic politics, where citizens are encouraged to exchange reasons and arguments with each other. The problem, however, is that most people think themselves already expert at reasoning and argument, and so popular deliberation is easily hijacked by skilled rhetoricians and other manipulators. The AGORA-net tools are important because they do not propose to be *teaching* reasoning to users, but instead engage users in a process by which they come to exercise and develop their reasoning skills.

The researchers at Georgia Tech's Center for Ethics and Technology are seeking a NEH Digital Humanities Start-Up Grant for the purpose of developing, promoting, and assessing AGORA-net. The plan they propose is well-conceived. In my view this is a sound investment of NEH funds, and I urge the NEH to consider funding this project

Respectfully Submitted,



Dr. Robert B. Talisse
Professor of Philosophy and Department Chair
robert.talisse@vanderbilt.edu

2111 West End Avenue tel 615.322.2637
111 Furman Hall fax 615.343.7259
Nashville, TN 37240 <http://www.vanderbilt.edu/AnS/philosophy>

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

National Center for Professional and Research Ethics

257 Coordinated Sciences Laboratory, MC-228
1308 West Main Street
Urbana, IL 61801-2307 USA



August 28, 2013

Michael Hoffmann
School of Public Policy
Georgia Institute of Technology
685 Cherry Street
Atlanta, Georgia 30332
Via Email: m.hoffmann@gatech.edu

Dear Dr. Hoffmann:

The National Center for Professional and Research Ethics (NCPRE) at the University of Illinois—Urbana-Champaign is delighted to support and collaborate on the project titled *Online Deliberation in the AGORA-net*. This project is being proposed by the Center for Ethics and Technology (CET) to the NEH Digital Humanities Start-Up grant program.

In support of the project, NCPRE will work with CET to develop a portal for NCPRE's Ethics CORE national online ethics center website through which our members and web page visitors could access the AGORA-net. Such a portal would allow visitors of our web page to be immersed in a world of debate: to create argument maps and participate—synchronously and asynchronously—in ongoing debates and deliberations. To that end, our digital librarians and technical developers will work with CET's software coders to develop a portal that fits both the Ethics CORE web presence and that of AGORA-net.

We are committed to encouraging robust collaboration and debate within Ethics CORE and beyond. This effort with CET would undoubtedly facilitate just that. Moreover, it would lead to increased visibility for not only our webpage, but the AGORA-net platform. Our entire team at NCPRE is very excited to be involved with this project, and invested in the outcome.

Cordially,

C. K. Gunsalus
Director, National Center for Professional and Research Ethics
Professor Emerita of Business
Research Professor, Coordinated Science Laboratory



Karlsruhe Institute of Technology

KIT-Campus Nord ITAS Karlstraße 11 76133 Karlsruhe

Michael Hoffmann
School of Public Policy
Georgia Institute of Technology
685 Cherry Street
Atlanta, Georgia 30332
USA

**Institute for Technology Assessment
and Systems Analysis (ITAS)**

Head: Prof. Dr. Armin Grunwald

Karlstraße 11
76133 Karlsruhe, Germany

Phone: +49 (0) 721 60823007
Email: Michael.Decker@kit.edu
Web: www.itas.kit.edu

Official in charge: Prof. Dr. Michael Decker
Our reference:
Date: 2013-08-29

Dear Dr. Hoffmann,

the Institute of Technology Assessment and Systems Analysis (ITAS) at Karlsruhe Institute of Technology (KIT) is delighted to support and collaborate on the project titled *Online Deliberation in the AGORA-net*. This project is being proposed by the Center for Ethics and Technology (CET) to the NEH Digital Humanities Start-Up grant program.

In support of the project, ITAS will work with CET to develop a portal for the ITAS website through which our members and web page visitors could access the AGORA-net. Such a portal would allow visitors of our web page to be immersed in a world of debate: to create argument maps and participate--synchronously and asynchronously--in ongoing debates and deliberations. To that end, our web page developers will work with CET's software coders to develop a portal that fits both our web presence and that of AGORA-net.

We are committed to encouraging robust collaboration and debate within our member community and beyond. This effort with CET would undoubtedly facilitate just that. Moreover, it would lead to increased visibility for not only our webpage, but the AGORA-net platform. ITAS is very excited to be involved with this project, and invested in the outcome.

Sincerely,

Prof. Dr. Michael Decker

**INSTITUTE OF PHILOSOPHY
RUSSIAN ACADEMY OF SCIENCES**

Moscow, 119991, Russia

Volkhonka, 14/1, str.5

Tel.: (495) 697-91-09, (495) 697-95-74

Fax: (495) 609-93-50

E-mail: iph@iph.ras.ru

10.09.2012

Michael Hoffmann
School of Public Policy
Georgia Institute of Technology
685 Cherry Street
Atlanta, Georgia 30332
Email: m.hoffmann@gatech.edu

Dear Dr. Hoffmann:

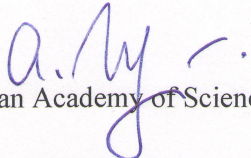
The Research Center for Philosophy of Technology and Engineering Ethics in the Institute of Philosophy of Russian Academy of Sciences is delighted to support and collaborate on the project titled *Online Deliberation in the AGORA-net*. This project is being proposed by the Center for Ethics and Technology (CET) to the NEH Digital Humanities Start-Up grant program.

In support of the project, Research Center for Philosophy of Technology and Engineering Ethics in the Institute of Philosophy of Russian Academy of Sciences will work with CET to develop a portal for the Research Center for Philosophy of Technology and Engineering Ethics in the Institute of Philosophy of Russian Academy of Sciences website through which our members and web page visitors could access the AGORA-net. Such a portal would allow visitors of our web page to be immersed in a world of debate: to create argument maps and participate--synchronously and asynchronously--in ongoing debates and deliberations. To that end, our web page developers will work with CET's software coders to develop a portal that fits both our web presence and that of AGORA-net.

We are committed to encouraging robust collaboration and debate within our member community and beyond. This effort with CET would undoubtedly facilitate just that. Moreover, it would lead to increased visibility for not only our webpage, but the AGORA-net platform. Research Center for Philosophy of Technology and Engineering Ethics in the Institute of Philosophy of Russian Academy of Sciences is very excited to be involved with this project, and invested in the outcome.

Sincerely,

Prof. Dr. A.A. Guseinov
Director of the Institute of Philosophy of Russian Academy of Sciences
Prof. Dr. V.G. Gorokhov
Head of the Research Center for Philosophy of Technology and Engineering Ethics





School of Social Work
401 Sunset Avenue
Windsor, Ontario, Canada N9B 3P4
T 519.253.3000
www.uwindsor.ca/socialwork/

Date: September 10, 2013
RE: Letter of Support for *Online Deliberation in the AGORA-net*

Dear Dr. Hoffmann:

The School of Social Work at the University of Windsor is delighted to support and collaborate with you and your team on the project titled *Online Deliberation in the AGORA-net*. We understand this project is being proposed by the Center for Ethics and Technology (CET) to the NEH Digital Humanities Start-Up grant program.

In support of the project, Dr. Suzanne McMurphy, faculty at the University of Windsor, will commit to working with CET to engage in argument mapping projects in the fall of 2014 and the spring of 2015 with groups of students at the University of Windsor and Georgia Tech. These projects will defend certain ethical positions in relation to a variety of emerging technologies that will be selected by CET and relevant to both educational programs.

These mapping projects will provide a novel mechanism for interdisciplinary collaboration across different University sites and educational programs. We are excited to be part of this emerging dialogue and look forward to a productive project.

Sincerely,

A handwritten signature in black ink, appearing to read 'Suzanne McMurphy'.

Suzanne McMurphy, Ph.D., MSS, MLSP
Assistant Professor
School of Social Work
University of Windsor
Tel: 519.253.3000, ext. 3071
E-mail: mcmurphy@uwindsor.ca

September 9, 2013

Ms. Perry Collins, Senior Program Director
Office of Digital Humanities
National Endowment for the Humanities
1100 Pennsylvania Ave., NW
Washington, D.C. 20506


Dear Ms. Collins:

As Director of the Center for Ethics and Technology at Georgia Tech, I write to express the commitment of the Center to the project titled *Online Deliberation in the AGORA-net*, proposed to the NEH Digital Humanities Start-Up grant program by my colleague, Michael Hoffmann.

The overall mission of the Center is to foster a culture of critical inquiry and deliberation about ethical issues that arise in relation to technological systems. The proposed project is central to one of the three core initiatives of the Center, aimed at providing online platforms for public deliberation.

The Center will carry on the work of the proposed project beyond the end of the funding period, which will contribute to the long-term sustainability of this application of AGORA-net.

Sincerely,



Robert Kirkman, PhD
Director, Center for Ethics and Technology
Associate Professor, School of Public Policy
Georgia Institute of Technology

Atlanta, Georgia 30332-0345 U.S.A.
PHONE 404.894.6822
FAX 404.385.0504

Appendix A: Two examples of AGORA argument maps

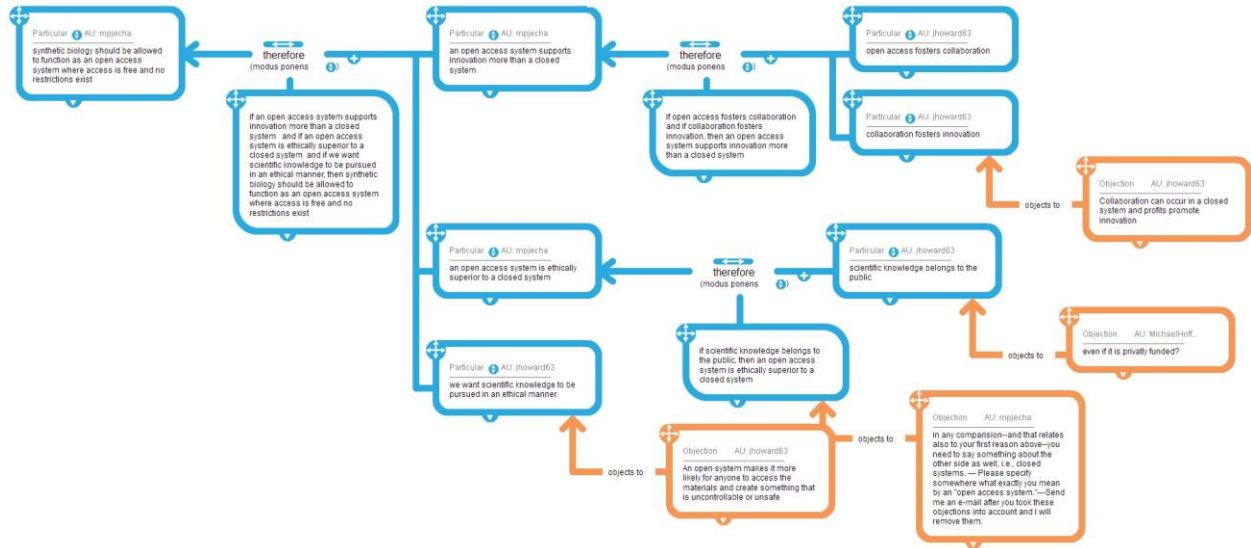


Figure 1: In blue an argumentation in which a position on the top left is defended by reasons that are partly justified by further reasons. The orange text boxes are objections against specific reasons.

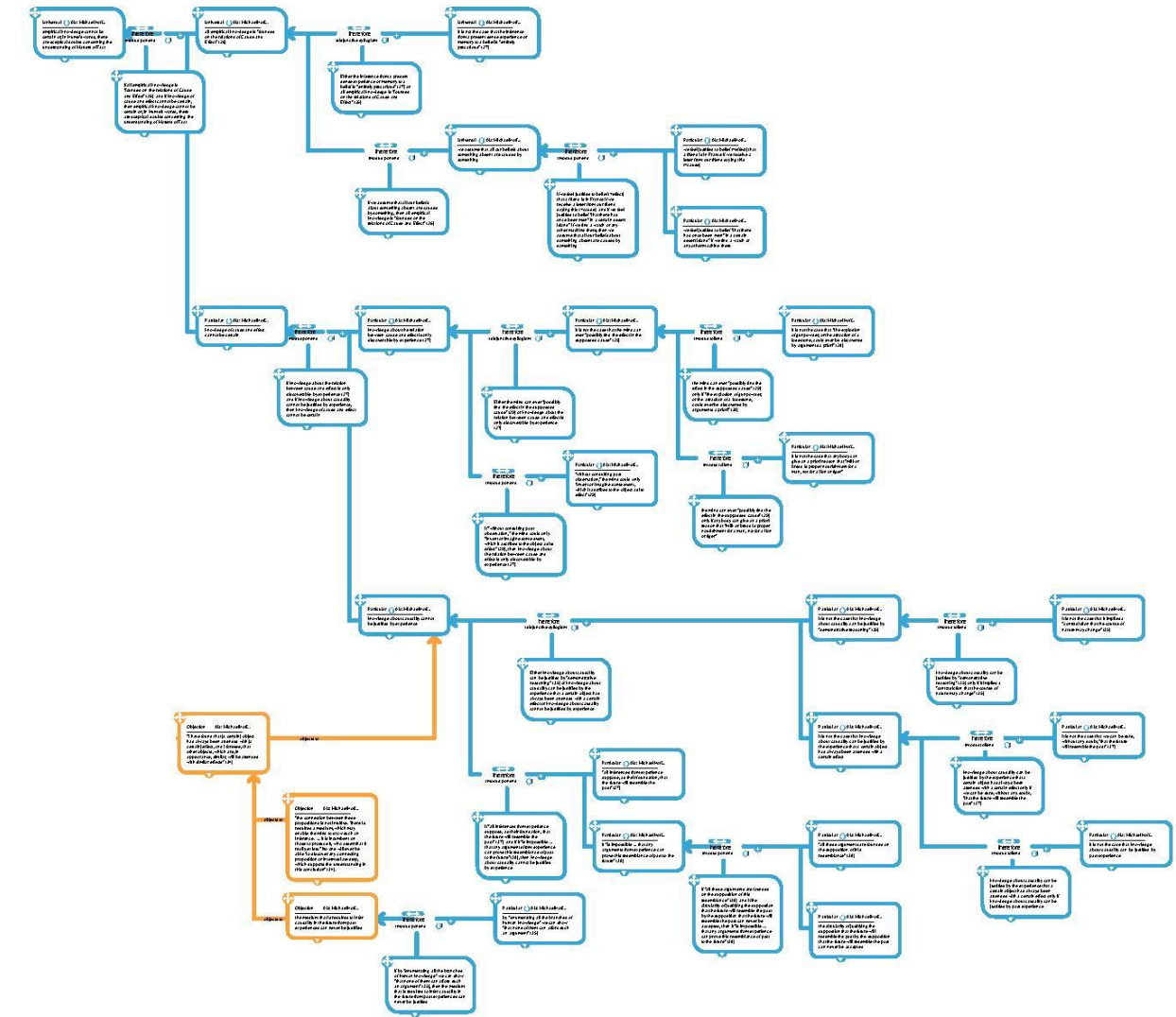


Figure 2: David Hume's argument for the thesis (as the conclusion in the top left corner reads) that "empirical knowledge cannot be certain or, in Hume's words, there are sceptical doubts concerning the understanding of Matters of Fact." The map is published in AGORA-net as "Hume's—2—argument..." in Philosophy / Epistemology.

Appendix B: Groups of insufficient CSAV tools

1. Single user applications: only one user can create/edit/analyze an argument map

Araucaria	http://araucaria.computing.dundee.ac.uk/doku.php#araucaria
Argumentative	http://argumentative.sourceforge.net/
Argumed	http://ai.rug.nl/~verheij/aaa/argumed3.htm
Argunet	http://argunet.org
Bubbl	https://bubbl.us/
Carneades ³	http://carneades.github.io/
Causality Lab	http://www.phil.cmu.edu/projects/causality-lab/
Convince Me	http://www.soe.berkeley.edu/%7eschank/convinceme/
iLogos	http://www.phil.cmu.edu/projects/argument_mapping/
Logic Toolbox	http://philosophy.lander.edu/~jsaetti/Welcome.html
OVA	http://www.arg.dundee.ac.uk/?page_id=143
Power of Logic	http://www.poweroflogic.com/cgi/menu.cgi
Rationale ⁴	http://rationale.austhink.com/
Rationale Online	https://www.rationaleonline.com/
SMILE	http://genie.sis.pitt.edu/
Theseus ⁵	http://www.skymark.com/Theseus/overview.asp

2. Linear presentation of arguments and objections

Argumentations	http://www.argumentations.com/
Entailment	http://entailment.org
Honest Argument	http://honestargument.com/
Truth Mapping	http://www.truthmapping.com/
Zilino	http://zilino.com/

³ Carneades is conceptualized as a collaborative online tool, but works currently only as a single user application.

⁴ Rationale is a commercial product.

⁵ Theseus is a commercial product.

3. Loose constraints

Belvedere	http://belvedere.sourceforge.net/
Compendium	http://www.compendiuminstitute.org/
Cohere	http://cohere.open.ac.uk/
Deliberatorium	http://deliberatorium.mit.edu/
Discourse DB	http://discoursedb.org/wiki/Main_Page
DREW	http://scale.emse.fr/pws/student/
Debate Graph	http://debategraph.org
Global Argument	http://projects.kmi.open.ac.uk/GlobalArgument.net/index.html
LASAD	http://cscwlab.in.tu-clausthal.de/lasad/
Metafora	http://www.metafora-project.org/
Mind Meister	http://www.mindmeister.com/23290325/western-philosophy
SEAS ⁶	http://www.ai.sri.com/~seas/
STELLA ⁷	http://iseesystems.com/software/Education/StellaSoftware.aspx
TruthMapping	http://www.truthmapping.com/about.php

⁶ SEAS is a commercial product.

⁷ STELLA is a commercial product.

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