

## Contributors

**Abigail Bohn** attends DuPont Manual High School, located in Louisville, Kentucky. Serving as a Varsity captain, she is an avid cross country and track runner. In the future, Abigail hopes to attend medical school with aspirations of becoming a surgeon.

**Alyssa Gaylard** is a high school senior at Appleby College in Oakville, Ontario. Next year, she will be attending the University of California, Irvine to study political science. In high school, Alyssa was the Director of the Debate Club, the Secretary General of the Model United Nations Club, and the Politics Editor for an independent student-led newspaper. In addition to this, she also enjoys participating in community service events and social justice campaigns. In her spare time, Alyssa loves writing poetry and making short films.

**Lydia Guertin** is currently published by the Tennessee Academy of Science for her work on Dielectric Elastomer Actuators, but chose to study the impacts of sexual assault awareness movements after her own experiences with sexual assault. She is an avid soccer player and musical theater performer in her free time, and will be attending Haverford College in the fall, where she intends to double-major in Mathematics and Astrophysics.

**Sawsan Haider** will be a student at Queen's University to study health sciences in the fall. She is passionate about the intersection between health and technology and has worked on projects like designing an app that uses retina scans to detect Alzheimer's and creating a machine learning algorithm to detect diseases in CT scans.

**Ella Hilton** is passionate about gaining momentum for the computer science field while encouraging all students, regardless of gender, that they can pursue whatever it is that interests them.

**Nanyi Jiang** is a Capstone student at Appleby College, Ontario, Canada. Her work focuses on business, economics, and entrepreneurship.

**Asha Kalapatapu** lives in the Houston suburb of Katy. She became interested in the topic of support needed for caregivers based on her family's experience. A member of the Seven Lakes HS Class of 2021, Asha undertook this research project as part of the AP Capstone program. She serves as editor-in-chief of the school yearbook, is an officer with the Hospital Missions organization and National Charity League, and is also a member of the Superintendent's Leadership Circle.

**Pragyat Khanal** is a high school senior at Newark Charter School in Newark, Delaware. He is planning on majoring in biomedical engineering at Duke University.

**Rakshita Kota** is a current Junior in High School and is a 17 year old ambitious girl with big dreams and aspirations. While not in school or doing school work, Rakshita spends most of her time participating in extracurricular activities and community service. A significant portion of her time goes towards coaching math and science topics online and running a competitive math and science team at her former Elementary school. In fact, Rakshita was recently awarded the President's Volunteer Service Gold Award for her dedication to the club. She also serves as an officer in both the Math and Science National Honor Societies at her school. Outside of school, Rakshita also tutors students and donates the money earned to provide English teachers to economically disadvantaged students in a rural village in India. Additionally, for the past 12 years, Rakshita has been passionately and committedly learning classical Indian dance and music as hobbies.

**Alistair Langhorne** is a grade 12 student attending Royal St. George's College in Toronto, Canada.

**Siyu (Elaine) Liu** is a Grade 12 student at Appleby College in Oakville, Ontario. She is a math enthusiast and fervid community advocate. Her paper—“Not a Children’s Game: Misogyny in the Online Gaming Community”—was conducted as part of the AP Capstone program at school. Elaine is interested in gender studies, cryptography, machine learning, and linguistics. She plans to study mathematics at Massachusetts Institute of Technology in the fall and apply her quantitative skills in addressing social inequalities. During high school, Elaine works to promote equal gender representation in the mathematics community by starting a Math Club at her school. Having represented Canada at the 2020 and 2019 European Girls’ Mathematical Olympiad, she hopes her participation will encourage more aspiring female mathematicians to pursue their passion. When not busy, Elaine likes to spend her time reading 20th century literature, skateboarding, and stargazing.

**Madeline McWatters** is a rising senior at Newark Charter High School in Newark, DE. The following research paper was written for an AP level research class.

**Demos Negash** is a 17 year old student at duPont Manual High School in Louisville, Kentucky. Over the years, Demos has developed a strong passion for research. For the past two years, he focused computational chemical structures for solar cells to find a feasible alternative. This knowledge provided him with a strong background when he worked a monitoring system using solar cells. Demos is involved in Y-Club, where he currently serves as the Secretary General of the largest youth government conference in the United States, and is the head captain of his school’s Congressional Debate team. In the future, he aspires to explore and write in the world of academia pertaining government and international relations, hoping to use the skills learned from his STEM research and pass them onto others.

**Esha Patel** is a senior in high school at Holy Trinity Episcopal Academy in Melbourne, FL. She is interested in microbiology and has been conducting research at the Florida Institute of Technology as a high school student. She will be attending Duke University next year and will be studying biology and global health, hoping to pursue a career in medicine.

**Juliet Pridgen** is a recent graduate of Mabank High School, class of 2019. She currently attends Southwestern University in Georgetown, Texas where she is working towards her Bachelor of Science degree in Biology with a minor in Health Studies in hopes of attending dental school in the future. Juliet is also a member of the Southwestern Lady Pirates Soccer team and enjoys spending time with her family and dogs.

**Clara Ray** is a current high school senior. Beginning in fall 2020, she will be pursuing a bachelor’s degree at Georgia State University in Atlanta, GA. She is an aspiring environmental researcher with specific interests in hydrology and plastic pollution.

**Sreevatsa Vemuri** is an energetic and passionate student who always strives for exceeding expectations. He delves into numerous volunteering opportunities and does his best to help those impacted by health issues. In his free time, you can find Vatsa playing video games or watching YouTube.

**Julia Werner** is a student at DuPont Manual High School. She plans on entering the field of engineering in the future.

**Nick Woollcombe** is currently in Grade 12 at Royal St. George’s College in Toronto, Canada. Come fall, he is planning on studying Financial Modeling and Business Administration at the Ivey School of Business, University of Western Ontario.

## Faculty and Advisors to Contributors

**Stephanie Bergren** earned a BA in Television from Columbia College Chicago in 2005. Following graduation, she worked in documentary and video ethnography. As a favor to a friend, she copy-edited a novel in 2006 and has worked intermittently as a copy editor ever since. In 2016, she began teaching 7th grade English. Since then, she has taught English I, III, IV, and AP Research.

**Kenneth J. Broda** is a Social Studies teacher at Columbus High School in Columbus, GA. Columbus High School is a college preparatory Liberal Arts Magnet Program that has been ranked as one of the top schools in Georgia and the nation in recent years. Currently, he teaches AP Research and AP Macroeconomics, and he has also taught AP US Government and Politics for 16 years. Mr. Broda has taught for 28 years, with 24 of them being at Columbus High School. Beyond teaching in the normal classroom, Mr. Broda taught 4 years in Georgia's Governor's Honors Program, worked at the AP read for US Government and Politics and Macroeconomics as a reader/table leader for a combined 17 years, and has been an AP workshop presenter for the Georgia Department of Education for 7 years. He received a B.A. from the University of Virginia and a M.Ed. from Columbus State University. Mr. Broda has spent his career teaching students about the humanities and how to reach their full academic and personal potential.

**Clay Dion** is an AP Capstone teacher at Appleby College, teaching both AP Seminar and AP Research in addition to senior school English classes. He is also the Coordinator of the school's Centennial Scholarship programme. He holds a Master's Degree in English Literature from Western University as well as undergraduate degrees in both English (Western) and Mathematics (Waterloo). Before coming to Appleby, he was a sessional instructor, teaching courses in poetry and 18th Century Literature at

Western University and delivered papers at various conferences, including a paper at Princeton University about the influence of Einstein's theories on the Beat poets.

**Michael Duplessis** is an AP Biology and AP Research teacher at Page High School in Franklin, TN, where he also serves as the Science Department chair. Michael has had the privilege of teaching at Page for 13 years. Before moving to Tennessee in 2007 he taught Biology classes at John Ehret High in Louisiana for 8 years. He earned his Bachelor's Degree in Science Education at the University of New Orleans and his Master's Degree in Educational Leadership and Doctor of Education in Learning Organizations and Strategic Change from Lipscomb University in Nashville. Michael truly enjoys working with students as they research new ideas, and always enjoys learning what his students can teach him because of their research.

**Dawn Heinecken** is Professor and Chair of the Department of Women's, Gender and Sexuality Studies at the University of Louisville. Her research focuses on critical cultural analysis of gender/race/sexuality in media with an emphasis on sports and children's literature.

**Claire Kelly** teaches AP Capstone Seminar and Research, and Senior English at Appleby College in Oakville, Ontario. Additionally, she is the Director, Curriculum & Research at the school, helping to lead curricular innovation and pedagogical research. Claire recently earned her PhD from OISE/UT ('19) in Leadership, Higher, and Adult Education, with a dissertation exploring gender representation in independent school headships. She has presented her research in various contexts, including the American Educational Research Association (AERA), and as a CAIS Leadership Institute Women in Leadership module facilitator. Additionally, she has written three children's books (Rubicon publishing). Claire

believes in the power of writing to make change, and encourages her students to think critically, and to use their voices to shape the future.

**Catherine Koos** teaches at Holy Trinity Episcopal Academy, in Melbourne, Florida.

**Janet Kurusanather** is an AP Capstone and English teacher at Appleby College. She holds a BA (Hons.), BEd (Hons.), and Master's degree from York University, graduating from each programme as a Member of the Dean's Honour Roll. Her Master's research was awarded the Joseph-Armand Bombardier Canada Graduate Scholarship from the Social Sciences and Humanities Research Council of Canada (SSHRC). Presently, Janet is a third-year PhD student at the University of Toronto. Her research interests include ethical philosophy and anti-oppressive education.

**Matthew Lohman** is an educator at Newark Charter High School in Newark, Delaware. He has taught a variety of high school English courses since 2002, including AP English Language and Composition for the past 13 years. In 2015, he helped to develop the AP Capstone curriculum at Newark Charter High School, the first school in Delaware to implement the AP Capstone program. He has taught AP Seminar since 2015 and AP Research since 2016, taking great pride in his students' laudable success and tremendous growth as writers, researchers, and critical thinkers. He holds a BSEd. in English from West Chester University, a Master's degree in education from the University of Delaware, and he is currently working on a second Master's degree in educational technology.

**Shannon Roos** is an English and AP Capstone teacher and an instructional coach at Hampton High School in Pennsylvania. She holds a bachelor's degree in English and secondary education from Carlow University and her master's degree in instructional technology from Wilkes University. Through her teaching and coaching she strives to

help students see themselves as problem solvers who can face challenges with curiosity and confidence. She looks forward to continuing to support these ideas in the AP Research course.

**Tonya Sukhu** is an AP Research and US History teacher at Seven Lakes High School in Katy, TX. She holds a BA in History from The University of Texas at Austin and a MA in History from The University of Texas-Pan American (now UTRGV). She enjoys seeing her students engage in research and actively implements research elements no matter what class she teaches.

**Will Truong** teaches mathematics and computer science at Appleby College in Oakville, Ontario, Canada. He earned a degree in math from the University of Waterloo, and a Bachelor of Education degree from Queen's University.

**Alesia Williams** has a background in the humanities. She has a BA in art history from Berea College and has completed coursework for an MA from the University of Cincinnati. She has a MAT with a focus on English from Spalding University. She has been teaching in the public school system in Louisville, KY for sixteen years. Thirteen of those years have been at duPont Manual High School which has five magnets and is typically ranked as the best high school in Kentucky. She has been teaching AP English Language and Composition for ten years and AP Research for one year. She is focused on helping her students achieve at the highest levels, especially in regards to academic writing. She encourages her students to think of themselves as writers and to pursue writing competitions and publication. Her students have been recognized with top honors from the NCTE and KCTE writing competitions, the Scholastic Art and Writing competition, and the MIT INSPIRE research competition.

## Pool of Consulting Editors of the Journal

Suzanne Conklin  
Akbari

BA, MA, MPhil,  
PhD

Suzanne Conklin Akbari is professor of English and Medieval Studies at the University of Toronto, and was educated at Johns Hopkins and Columbia. Her research focuses on the intersection of English and Comparative Literature with intellectual history and philosophy, ranging from neo-platonism and science in the twelfth century to national identity and religious conflict in the fifteenth century. Akbari's books are on optics and allegory (*Seeing Through the Veil*), European views of Islam and the Orient (*Idols in the East*), and travel literature (*Marco Polo*); she is currently at work on *Small Change: Metaphor and Metamorphosis in Chaucer and Christine de Pizan*. She is volume editor for the *Norton Anthology of World Literature* (Volume B: 100-1500), co-editor of the *Norton Anthology of Western Literature*, and editor of *The Oxford Handbook to Chaucer*. She has begun a new research project called *The Shape of Time*, contrasting the temporal breaks found in medieval chronicle traditions with poetic narrations of the historical past. Akbari is cross-appointed to the following units at the University of Toronto: Centre for Medieval Studies; Centre for Comparative Literature; Centre for Jewish Studies; Department of Near and Middle Eastern Civilizations; Centre for Reformation and Renaissance Studies.

Becky Bakhshaei

BSc, MSc, Dip.  
Chem Lab  
Technology

Becky Bakhshaei is a professional R & D chemist. She earned a master's degree in organic chemistry, an undergraduate degree in biochemical and pharmaceutical chemistry, and a diploma in chemical laboratory technology.

David Baldesarra

B.Sc., M.Eng.,  
P.Eng.

David Baldesarra is a professional engineer with experience in structural failure cause analysis; assessment of property damage related to fire, explosion, vibration, ground movement, wind load, snow load, vehicle impact, fallen tree impact, and water (moisture) infiltration; analysis of building science and building envelope deficiencies/failures; structural design for the new construction and retrofit of buildings and miscellaneous, and structures, including design of structural steel, reinforced concrete and engineered wood, among other areas of expertise.

Barrie Bennett

BPE, MEd, PhD

Barrie Bennett is professor emeritus at the Ontario Institute for Studies in Education at the University of Toronto (OISE/UT). His research work focuses primarily on the design of powerful learning environments for students and teachers through the process of systemic change. He is currently working in districts in three countries on long-term projects related to instructional intelligence and systemic change (Australia, Ireland and Canada). Instructional intelligence involves intersecting the current research on curriculum, assessment, and instruction guided by what is known about how students and teachers learn. That intersection being driven by what is known about change and systemic change. He also assists teachers, schools, and districts with issues related to classroom management and school wide-discipline. Barrie has taught at the elementary and secondary levels, as well as, having worked in group homes, prisons, and security units for juvenile offenders. He has written six books: *Cooperative Learning: Where Heart Meet Mind*; *Classroom Management: A Thinking and Caring Approach*; *Beyond Monet: The Artful Science of Instructional Integration*; *Graphic Intelligence: Playing With Possibilities* and most recently *Power Plays*. Currently he is just finishing a text titled, *Effective Group Work: Beyond Cooperative Learning*.

- Anthony Campbell  
BA, MA, PhD
- Anthony Campbell established Grow for Good Urban Teaching Farm in 2013 as a business model innovation laboratory and learning centre for young entrepreneurs. He spent time working throughout North America, Europe, Australia, Asia and now resides in his hometown of Toronto. Examples of Anthony's work are documented in *The Innovator's Field Guide* (2014), co-authored by David Crosswhite and Peter Skarzynski, as well as multiple Harvard Business School and Corporate Executive Board case studies chronicling the innovation and capability-building efforts of companies such as Samsung, Whirlpool, Best Buy and McDonald's. Previously, Anthony taught Film Studies, Writing and English Literature at The University of Western Ontario.
- Jeremy B. Caplan  
ScB, PhD
- Jeremy Caplan is an Associate Professor in the Psychology Department at the University of Alberta, where he is also the Principal Investigator at the University of Alberta Computational Memory Lab. The lab is focused on human verbal memory behaviour and its basis in cognitive and neural processes. The team takes several approaches towards research, including mathematical modeling, measures of behaviour in the cognitive psychology tradition, and measures of brain activity using electroencephalography (event-related potentials and oscillations) and functional magnetic resonance imaging. He has been a referee for 38 academic journals.
- Nathan Chow  
BSc, Msc, BEd
- Nathan Chow teaches Physical Sciences at Royal St. George's College (RSGC) in Toronto and consults on educational material at Perimeter Institute for Theoretical Physics in Waterloo. He has worked with Ontario's Ministry of Education to develop research-based teaching resources for Physics teachers within the province and across the rest of Canada. His academic research explored whether or not we understand how gravity behaves at intergalactic distances and provided possible explanations for our observations of dark energy. He has presented this research and led teacher training workshops around the world. In addition to AP Physics 1 and C, he teaches the AP Capstone Research course at RSGC.
- Hance Clarke  
BSc, MSc, MD, PhD,  
FRCPC
- Dr. Clarke is the director of Pain Services and the medical director of the Pain Research Unit at the Toronto General Hospital. He is appointed to the Institute of Medical Sciences at the University of Toronto and is a graduate of the Royal College Clinician Scientist Program. His research interests include identifying novel acute pain treatments following major surgery, identifying the factors involved in the transition of acute postsurgical pain to chronic pain, studying the genetics of acute and chronic pain after surgery, and identifying risk factors associated with continued opioid use and poor health related quality of life after major surgery as well as the efficacy of hyperbaric medicine. Over the past five years he has authored 47 peer reviewed manuscripts.
- Will Fripp  
BA, MA
- Will Fripp is a public affairs and political risk analyst for Canadian and international clients. A B.A. in History and Political Science from Victoria University at the University of Toronto and an M.A. in Intelligence and International Relations from the University of Salford in Manchester, England, he is a historian specializing in intelligence and espionage, and its modern influences. Will anchored [www.spiesintheshadows.com](http://www.spiesintheshadows.com), a web based curriculum outlining Canadian foreign intelligence history and its impacts on Canada's national development. An occasional lecturer, Will's writings and review articles appear in peer-reviewed academic journals like *Intelligence and National Security*, and elsewhere.

- Michael Gemar  
BSc, BA, PhD
- Michael Gemar received undergraduate degrees in Psychology and Philosophy from Rice University, and a PhD in experimental psychology from the University of Toronto. He has worked as a researcher at the Centre for Addiction and Mental Health, examining the cognitive and neural correlates of mood disorders, and was involved in a landmark study demonstrating the efficacy of mindfulness meditation to prevent depressive relapse. He has co-authored numerous journal articles, and taught for over a decade at U of T. More recently, he has worked in the area of health policy, and is currently at a Canadian non-profit.
- Jennifer Goldberg  
BA, BEd, MA
- Jennifer Goldberg holds an M.A. in History from the University of Toronto. Her graduate studies focused on teacher misconduct in 19th century Ontario, and her research is published in *Historical Studies in Education*. She currently leads the English department and teaches at Havergal College, where she has also served as Chair of Teaching and Learning. In this capacity, she has explored the role of feedback in student learning, and has presented on this work at the National Coalition of Girls' Schools and Conference of Independent Teachers of English.
- Margaret S. Herridge  
BSc, MSc, MPH,  
MD, FRCPC
- Margaret Herridge is a Professor of Medicine and Senior Scientist at the University of Toronto. She is also a senior clinician in Critical Care and Respiratory medicine at University Health Network. Her research focus is on long-term outcomes after critical illness for patients and families and specifically on functional, neuropsychological, healthcare utilization and quality of life metrics. Her graduate studies were in Cell and Molecular Biology at Queen's University where she subsequently obtained her degree in Medicine. After completing her clinical training in Internal Medicine/Respirology and Critical Care at the University of Toronto, she obtained her Master of Public Health in Epidemiology and Statistics from the Harvard School of Public Health.
- Ted Higginbotham  
BSc, MSc  
(Candidate)
- Ted Higginbotham is a graduate student at The University of Toronto and Hospital for Sick Children. His research is focused on further delineating the role of genomic structural variation in autism spectrum disorder and human disease. Ted is a contributing member of the Clinical Genome Resource (ClinGen), an international consortium working to define the clinical relevance of genes for use in precision medicine and translational research.
- Tim Hutton  
BA, MLIS
- Tim Hutton is a teacher-librarian at Royal St. George's College. He has a BA in History and American Studies from the University of Toronto and a Masters in Library and Information Science from San Jose State University. At the secondary level, he has taught courses in the social sciences, humanities and communications technology, including a locally designed interdisciplinary course in urban studies.

Ira Jacobs

Dip Phys Ed, MHK,  
DrMedSc

Professor Ira Jacobs became dean of the Faculty of Kinesiology & Physical Education at the University of Toronto on July 1, 2010, and was re-appointed to his current second decanal term. Before assuming this role, Jacobs was chair of York University's School of Kinesiology and Health Science from 2007 until 2010, and a federal government scientist from 1982 until 2007.

Jacobs earned his doctorate in clinical physiology from Sweden's Karolinska Institute, where he specialized in skeletal muscle metabolism. For the next 25 years, he did extensive exercise physiology research in Canada's human sciences laboratory, operated by the Department of National Defence. There, Jacobs rose to the position of chief scientist and led a unique international research group that helped to enhance the performance of military special operations units through their research into physiological, nutritional and pharmacological strategies.

He is a past president of the Canadian Society for Exercise Physiology and the Canadian Council of University Physical Education and Kinesiology Administrators. He is a fellow of the American College of Sports Medicine, an international fellow of the US National Academy of Kinesiology, and in 2016, he was named a Fellow of the Canadian Academy of Health Sciences.

Jacobs' research has led to the publication of more than 200 scientific articles, reports and book chapters about his research interests that include the physiological responses to physical exertion in environmental extremes, performance enhancement through pharmacological and nutritional manipulation of metabolism, and exercise pharmacology.

During his term as dean, the Faculty of Kinesiology & Physical Education has been rated as among the top academic programs in the world for kinesiology, physical education, sport and exercise sciences.

John Lambersky

BA, MA, BEd, PhD

John Lambersky is a teacher and head of the Canadian and World Studies department at Royal St. George's College in Toronto, where he leads the AP Capstone program. He has presented his work on teaching practice at the conferences of the International Boys' School Coalition, the National Association of Independent Schools, and the Canadian Accredited Independent Schools. His academic research is focused on school culture as a mechanism for school improvement. His work has been featured in *Leadership and Policy in Schools*, *The Dalhousie Review*, and *The Nashawaak Review*.

Blake Lee-Whiting

BA, MPP

Blake Lee-Whiting is a third year PhD student in the Department of Political Science at the University of Toronto. He received his BA from Queen's University and his MPP from the University of Toronto. He is interested in Canadian politics, public policy, and electoral politics. He is a member of the Policy, Elections, & Representation Lab at the Munk School of Global Affairs & Public Policy where he is currently working on projects related to the health of politicians, electoral success, and electoral candidacy.

- Lori Loeb  
BA, MA, PhD
- Lori Loeb is Associate Professor of Modern British history at the University of Toronto. She has a Masters in Museum Studies and a PhD in History. A specialist in the Victorian period, she is the author of *Consuming Angels: Advertising and Victorian Women*. Generally, she writes about things in nineteenth-century Britain. A past Deputy Chair and Associate Chair (Graduate) of the History Department, she is currently MA Coordinator. She teaches courses in nineteenth and twentieth-century British history, Victorian material culture and the English country house.
- Jaime Malic  
BA (Hons), MA,  
BEd, PhD
- Jaime Malic recently completed her PhD in Educational Leadership and Policy at the Ontario Institute for Studies in Education at the University of Toronto. Her research focused on leadership values and practices in independent schools in Ontario. Jaime has more than ten years of experience as an educator in both independent and public schools. She currently teaches AP Capstone Seminar and senior English courses at St. Clement's School. Jaime has served as both a Reader for AP Capstone Seminar and a writer on the Item-Writing Committee for the Ontario Secondary School Literacy Test. She has written for Independent Teacher and presented on various topics at the Conference of Independent Teachers of English Annual Conference, the Ontario Advanced Placement Administration Conference, and the Advanced Placement Annual Conference.
- William J. McCausland  
BAsc, MEng, MA,  
PhD
- William McCausland is an associate professor of economics at the Université de Montréal. His research applies Bayesian statistical methods in two main areas. The first is discrete choice, at the interface of economics and psychology, where researchers study how people make choices from a small menu of available options. The second is time series modelling in economics, which has many applications in macroeconomics and financial economics. His undergraduate studies were in Engineering and he received his Ph.D. degree in economics from the University of Minnesota.
- Matt Mooney  
BEd (Hons), BEd
- Matt Mooney is currently a secondary teacher in the Canadian & World Studies department at Royal St. George's College in Toronto, where he also serves on the Excellence in Teaching and Learning Committee. Matt earned an Honours BA from The University of Toronto, with a double major in History and Geography and his Bachelor of Education from the Ontario Institute for Studies in Education. Matt has been teaching in Ontario for the last 9 years and has experience with curriculum development, such as his work on the Education Committee for Magna Carta Canada. In 2019-2020, Matt helped to oversee the *The Young Researcher*.
- Gurbir Perhar  
BSc, PhD
- Gurbir Perhar received his academic training at the University of Toronto. His Doctoral work focused on mathematically modelling the transmission of highly unsaturated fatty acids in aquatic food chains, culminating in a suite of cybernetic models. His post-doc work saw him consulting for the governments of Canada, USA, South Africa, and China. These days Gurbir runs the Data Intelligence strategy in a multi-billion dollar corporation.

Kate Schumaker  
MSW, PhD

Kate Schumaker is the Manager of Quality Assurance & Outcome Measurement at the Catholic Children's Aid Society of Toronto, and holds the position of Assistant Professor (status only) at the Factor Inwentash Faculty of Social Work, University of Toronto. She has worked for over 20 years in child welfare and children's mental health, including front-line clinical positions and 10 years producing and implementing child welfare policy for the provincial government. In 2011-12 she worked for the Commission to Promote Sustainable Child Welfare, supporting accountability framework development, including the establishment of a set of standardized performance indicators for the child welfare sector in Ontario. Her areas of practice and research interest include poverty, child neglect, trauma-informed practice, child welfare decision-making, and evidence-informed policy and practice.

Eva Serhal  
BA, MBA, PhD

Eva Serhal is the Director of Virtual Mental Health and Outreach at the Centre for Addiction and Mental Health in Ontario, Canada and Director of the ECHO Ontario Superhub, a collaboration between CAMH and UHN that provides training and implementation support to new ECHO telementoring projects throughout Canada. Eva completed a PhD in Health Services Research at the University of Toronto, with a focus on outcomes and evaluation in virtual models of healthcare. Eva's current research assesses the implementation, adoption and economic factors of virtual care in Ontario. Eva also has significant experience with leadership and governance; she currently co-chairs the Toronto Telemedicine Collaborative and sits as a board member of the Children's Aid Society of Toronto.

Michael Simmonds  
BPE, M.A., Dip.Ed.,  
MEd, EdD

Michael Simmonds has worked in independent schools for over two decades. He taught science, biology, chemistry, physics, and math before becoming an administrator and Head of School. He earned graduate degrees from both McGill and Columbia universities respectively before receiving his doctorate from the University of British Columbia in Educational Policy & Leadership. His work on accountability synopticism is published in the peer-reviewed, *The International Education Journal: Comparative Perspectives*. He currently works at Havergal College as the VP School Life, Operations & Student Wellness.

Sydney Stoyan  
B.A, M.A., Ph.D.

Sydney Stoyan holds a B.A. in French Literature from the University of Toronto, and an M.A. and a Ph.D in English Literature from the University of Ottawa. Her doctoral thesis, "The Widow's Might: Law and the Widow in British Fiction, 1689-1792," won the Governor General's Gold Medal for the Arts in 2002. She has since written freelance and worked as an editor for various publications and projects.

## Alumni Editors

**Nicholas Bethlenfalvy** is a third-year student attending Trinity College at the University of Toronto. He graduated from Royal St. George's College in 2018 after studying under the two-year AP Capstone program. In AP Research, he analyzed the root causes of rising pedestrian fatalities in Toronto. After taking the Ethics, Society and Law stream in the Margaret MacMillan Trinity One Program, Nicholas continues to pursue an undergraduate degree in Economics and American Studies at the Munk School of Global Affairs and Public Policy.

**Ryan Hamilton** is studying History and Peace, Conflict and Justice at the Trudeau Centre at the Munk School of Global Affairs at the University of Toronto. He is a graduate of the Pearson Stream of the Vic One program at Victoria College. He works on the Pratesi Letters with Dr. Anne Urbancic. He is also a graduate of the AP Capstone program at Royal St. George's College, where his research focused on a Canadian battalion in the First World War.

**William Howard-Waddingham** is a student at Yale University studying political science. He interns with James and Deborah Fallows, authors of the bestselling book *Our Towns*, with whom he is helping to build the Our Towns Civic Foundation (OTCF). OTCF aims to be a forum for collaboration between American communities to discuss and find solutions to local issues overlooked by the federal government in a time of national disunity and political gridlock. He previously interned at the Yale Law School's Schell Center for International Human Rights as a research assistant to Professor Ryan Thoreson. William is interested in international relations, criminal justice reform, human rights, and journalism. He hopes to pursue a career as a human rights lawyer.

**Andrew Pyper** is a rising third year at the University of Chicago studying economics and political science. He graduated from RSGC in 2018, where he completed the AP Capstone program. His AP Research study examined the student perceptions of the implementation of formative assessment at RSGC and how it compared to the academic literature. At university he continues his education work by helping students at a South Side high school with their transition to college, he researched suicide attacks for the Chicago Project on Security and Threats, he researches and presents on monetary policy proposals at competitions held by the U.S. Federal Reserve, and he participates in numerous business and finance-related organizations.

## Guidelines for Contributors

*The Young Researcher* is a peer-reviewed journal dedicated to publishing the best original research from secondary school students.

The journal's mission is to provide a larger audience for the original academic research of ambitious secondary students, provide a forum for peer-review, and create a community of young researchers. In addition, the journal strives to advance the quality of academic writing in secondary schools.

*The Young Researcher* is edited by secondary school students working closely with scholars and active researchers at universities and in the community. The journal operates a blind peer-reviewed review process, following those found in academic research journals.

The journal encourages submissions of original research (including relevant replication studies) from a wide range of academic disciplines within the social sciences, humanities, and sciences.

### Submission Guidance:

- No more than 5,000 words, excluding references and appendices (in English)
  - Articles should have the following sections or equivalent:
    - Introduction
    - Literature Review
    - Method, Process, or Approach
    - Findings or Results
    - Discussion, Analysis, and/or Evaluation
    - Conclusion and Future Directions
    - References
- Papers should be formatted using discipline-appropriate methods (MLA, APA, and Chicago are acceptable).
- Papers should have an abstract (no more than 150 words) and have 4-6 keywords
- All units of measurement should be in metric wherever possible
- All studies involving human participants must have been approved by a Research Ethics Board

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Please direct any questions to [TheEditors@TheYoungResearcher.com](mailto:TheEditors@TheYoungResearcher.com)