



Conducting Research & Ethical Touchpoints

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Find your research topic and your supervisor

Engage in research as early as possible

RESEARCH CLUSTERS in EST

The screenshot shows a web browser displaying a research topic list. A large, light-blue cloud graphic is overlaid on the right side of the page, containing several research clusters. The clusters are: 'User Adaptive Systems', 'Intelligent Systems and Machine Learning', 'Cyber-Physical Systems', 'AI Agent Virtual Lab', 'Regenerative Design and Sustainability', and 'Northern Ecosystems'. The website content includes a sidebar with navigation links and a main table with columns for 'Area of Research' and 'Suggested By'.

Area of Research	Suggested By
A system to embed social interaction everywhere	Oscar Lin
Activities of Daily Life (ADL) Analysis and Alarm System	Maiga Chang
Addressing issues with IoT networks	Harris Wang
Adopting Project Anarchy to Create Educational Mobile App	Maiga Chang
Agent-Oriented Software Engineering (essay/project/thesis)	Oscar Lin
Agents in Virtual Worlds (project, thesis or essay)	Maiga Chang
An effective Internet control and monitoring solution	Mahmoud Abaza
Analyze and Design Factory Automation Applications with Semantic Technology	Xiokui Zhang
Authenticity problem of doing exams online	Mahmoud Abaza
Automated clustering of tags	Jon Dron
Automated question answering based on semantic analysis and statistical learning	Dunwei (Grant) Wen
Automatic Answering Service for Covid-19 Questions based on Natural Language Processing and Knowledge Base	Maiga Chang
Better Human-Computer Interaction Can Effortless	Maiga Chang
Better Human-Computer Interaction Can Effortless toward Multi-User System	Maiga Chang
Bigdata analytics for intelligent resource management and well scheduling	Ali Dewan
Bigdata processing for environmental change detection and monitoring of Athabasca river basin	Ali Dewan
Building a Virtual Math Mentor	Oscar Lin
Cell segmentation and tracking to automate cell-cycle analysis	Maiga Chang
Choosing better architecture to achieve green computing	Mahmoud Abaza
Cloud Computing Issues	Mahmoud Abaza
Cloud Computing Issues	Mahmoud Abaza
Collaborative filtering algorithms for recommendations of users and content	Jon Dron
Community-based Adaptivity in Mobile Learning	Sabine Graf
Computer graphic models for adaptive emotion expression of pedagogical agents	Oscar Lin
Considering Course Development Modes for Adaptivity in Learning Management Systems (project)	Sabine Graf
Context-aware Location-based Guidance System	Maiga Chang
Context-awareness in IoT networks: technologies and challenges	Harris Wang
Coordination or Regulatory Mechanisms of Multi-Agent Systems	Oscar Lin
Cross-platform collaborative widgets	Jon Dron
Data analysis for IPCC greenhouse gas inventory of Alberta and west Canada	Larbi Esmahi
Design and implementation of a Neuro-Fuzzy engine	Larbi Esmahi
designing and testing better e-reading tools	Jon Dron
Designing Professional Graphics User Interface on Both of Mobile and Browser	Maiga Chang

Research Integrity

Research misconduct means **Fabrication, Falsification, or Plagiarism** in proposing, performing, or reviewing research, or in reporting research results.

Research misconduct does not include honest error.

Fabrication is making up data or results and reporting them.

Falsification is manipulating research materials or processes, changing or omitting data or result misrepresenting research.

Plagiarism is the appropriation of another person's ideas, processes, results, or words without giving appropriate credit.

Self-Plagiarism



Intellectual Property (IP) Rights

AU	AU AND CREATOR	CREATOR
* Administrative and Operational Activities * Teaching and Learning Responsibilities	* Academic Research Activities	* External Research Activities


http://fgs.athabascau.ca/docs/Intellectual_Property.pdf

offers an excellent introduction to IP, copyright, patent ...

<http://ous.athabascau.ca/policy/#POI> points to AU's IP policy

- Discuss IP expectations at commencement of graduate student/supervisor relationship
- Draft an agreement and revisit when required

http://www.cags.ca/documents/publications/best_practices/Letterofunderstanding.FINALOCT2012.Eng.doc



Ethical behavior is doing
the right thing when no
one else is watching -
even when doing the
wrong thing is legal.
(Aldo Leopold)

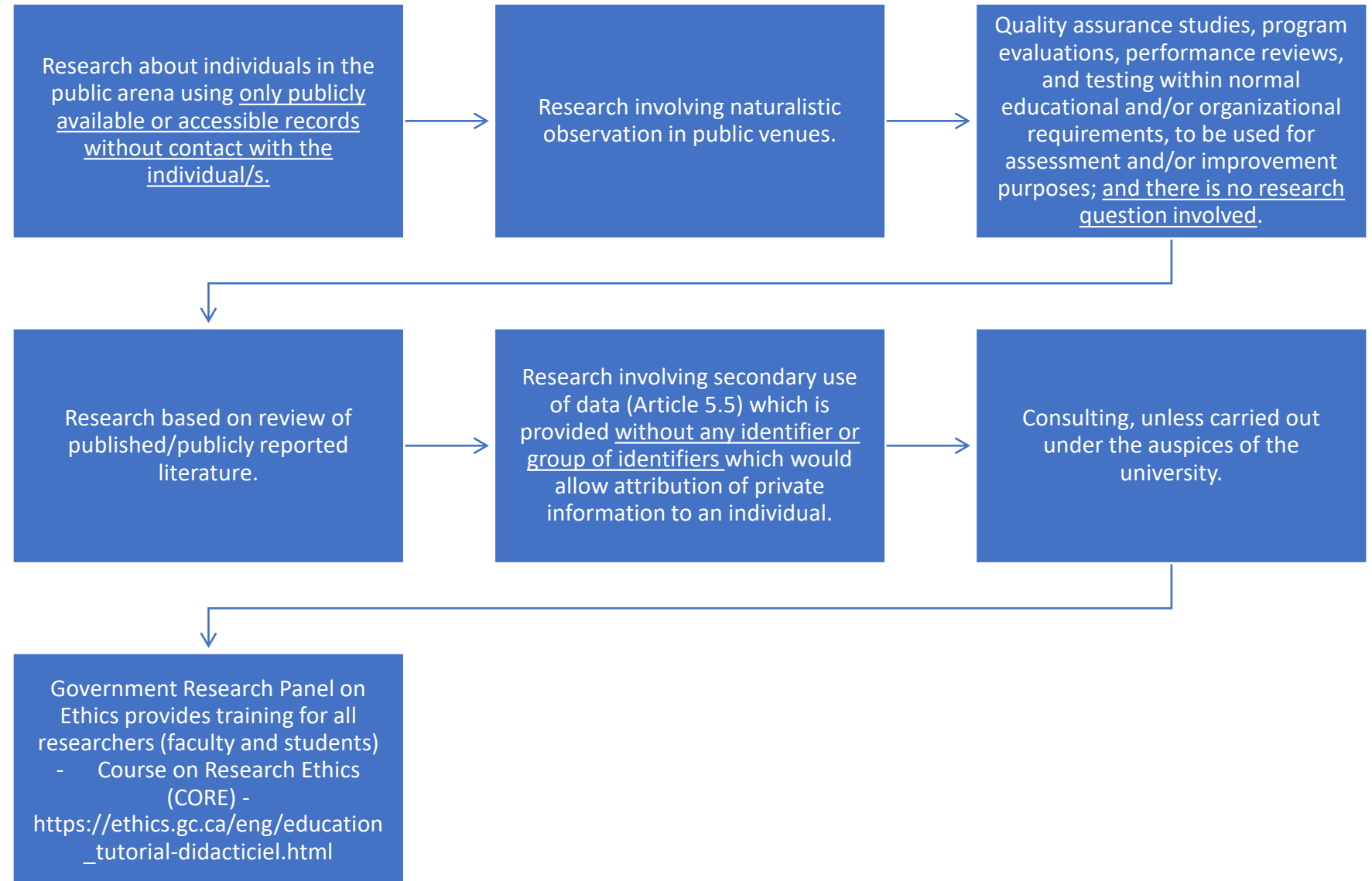
Academic Integrity - morals



- Outcome
 - I want my degree and to have learnt about this topic; getting caught implies a risk to gaining my degree
 - Intent
 - I want to succeed in learning and passing the course, by cheating I compromise my own learning
 - Inner guidance
 - I know cheating is wrong; I won't do it; I'll ask for help/options
 - Relativistic
 - Cheating is better than missing a deadline or scoring low; ok to cheat just this once because...
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What doesn't need REB review?



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- **2024 CAREB-ACCER Conference**
 - **The Future of Research Ethics: Navigating the Changing Landscape**
 - **Focused research ethics topics include:**
 - **community collaboration**
 - **research security**
 - **data ownership, management and governance**
 - **clinical trial design**
 - **broad consent**
 - **artificial intelligence**
 - **multi-jurisdictional research**
 - **anti-racism and anti-oppression in research ethic**
 - **learning health systems, and**
 - **research integrity and misconduct**

