

Breakout Session Report
High-Level Meeting of the Global Judicial Integrity Network
 (25-27 February 2020, Doha, Qatar)

I. TITLE OF THE SESSION:

Title of the Session:	Thematic Breakout Sessions II
Date and time of the Session:	Tuesday, February 25, 2020 from 15:25 – 16:35
Topic of the session:	Judicial Ethics Education – Improving its Reach, Quality and Impact through Algorithms?
Organizer(s):	Commonwealth Judicial Education Institute
Contact information of the session coordinator:	cjei@dal.ca

II. RAPPORTEUR

Rapporteur:	Sandra Hutchings
Position:	Administrator and Project Coordinator
Organization:	Commonwealth Judicial Education Institute

III. MODERATOR AND PANELLISTS:

Moderator:	Judge (R) Sandra E. Oxner
Position:	Founding President
Organization:	Commonwealth Judicial Education Institute

PANELLISTS

Name:	The Honourable Mr. Justice Peter Jamadar
Position:	Vice President of Programming
Organization:	Commonwealth Judicial Education Institute
Topic of presentation:	Behavioural Change Education
Summary of presentation (max. 200 words):	The imperative of Integrity is genuine, integrated, and sustainable effective behavioural change, integral values-based whole self/system transformation, and not merely the acquisition of knowledge or skills, the implementation of new rules and systems, or superficial changed behaviours.



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	<p>Behavioural change is a five stage process: pre-awareness, awareness, acceptance, choice and action. Pre-awareness is the condition of being unaware. There can be degrees of pre-awareness from total unknowing to degrees of knowing, but always such that there is no sufficient or full acknowledgment of the phenomenon being considered and examined.</p> <p>Awareness is the condition of being aware. There can be degrees of awareness as well as some overlap with pre-awareness. This stage is a threshold, marked by recognition and crossed when acknowledgment occurs.</p> <p>Acceptance is the condition of accepting the validity, relevance, aptness and inherent imperatives of the phenomenon being considered and examined. Again, there can be degrees of acceptance, from partial to full.</p> <p>Choice is the condition of freely resolving to modify and change pre-awareness attitudes, mindsets, behaviours, rules, systems, cultures so as to bring them into greater degrees of alignment with the imperatives of the phenomenon being considered and examined.</p> <p>Action is the condition of taking specific and concrete steps to actualize one's acceptance and choice of and alignment and identification with the imperatives of the phenomenon being considered and examined, so as to achieve effective and sustainable transformation of the whole self/system as is (collectively) deemed relevant and necessary.</p> <p>Tools for achieving transformation are self/system evaluation, awareness of techniques and application of the techniques. For all stages, there are educational interventions for addressing that stage and prompting progression to the next stages. These interventions must be accompanied by appropriate monitoring and evaluation.</p>
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Name:	The Right Honourable Sir Dennis Byron
Position:	Chair
Organization:	Commonwealth Judicial Education Institute

Topic of presentation:	Behaviour Change Education through Machine Learning
Summary of presentation (max. 200 words):	<p>Using a fact situation based on a Canadian judicial disciplinary tribunal decision which arose from a complaint that the judge showed gender bias, Sir Dennis identified:</p> <ol style="list-style-type: none"> 1. the application of the first principles of justice relating to equality as defined by Bangalore documents; 2. the legal test to be applied to determine when judicial conduct is judicial misconduct (Could the conduct reasonably cause the public to lose respect and confidence in the judge to carry out their duties in an impartial way?); 3. UK and Canadian legal precedents supporting the use of the Bangalore Principles (Canadian Jurisprudence – Therrien v Canada (Minister for Justice) [2001] 2 SCR 3 and Inquiry Pursuant to s. 63(1) of the Judges Act, 29 November 2016 and UK Jurisprudence - [2010] UKPC 24 Privy Council Appeal No 0092 of 2009); and 4. the factors to be considered in coming to a decision in a judicial misconduct case involving gender bias (see the six factors set out in the Commentary on the Bangalore Principles of Judicial Conduct, Paragraph 106). <p>Sir Dennis then presented an online machine learning programme on the topic. He invited audience participation to:</p> <ol style="list-style-type: none"> 1. determine if the facts supported judicial misconduct; and 2. determine if the participants selected the sanction “dismissal” from the possible sanctions to be imposed (no sanction, private reprimand, public reprimand or dismissal). <p>Sir Dennis advised participants that in the actual determination of the matter judicial misconduct was found and dismissal recommended. He asked the participants if they agreed and the reasons they did or did not. Participant responses were shown by an on screen graph.</p> <p>Sir Dennis then went on to ask if the participants had been tested for unconscious bias or taken a self-assessing gender test. He invited them to take the online self assessment test in the machine learning programme being illustrated to see if it influenced them to choose the dismissal sanction. He further invited them to complete the machine learning programme on judicial ethics on their return home to see if they were further influenced by it.</p>



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Name:	The Honourable Madan Lokur – Co-Presenter
Position:	President
Organization:	Commonwealth Judicial Education Institute
Name:	Mr. Karan Kalia – Co-Presenter
Position:	CEO & Founder
Organization:	Legitquest
Topic of presentation:	Artificial Intelligence in the Judiciary – Building an AI Algorithm
Summary of presentation (max. 200 words):	<p>Artificial Intelligence (AI) includes Machine Learning (ML) plus Natural Language Processing (NLP) and requires a large volume of datasets to be effective. Machine learning algorithms can assist in generation of datasets and identification of keywords. A computer does not have cognitive ability but can provide options and choices – narrow intelligence.</p> <p>AI can draw inferences and make predictions. Information extraction algorithm can automatically extract key pieces of information. ML and reasoning algorithms can be used to make predictions about the likely outcome of yet untested intervention.</p> <p>AI limitations include (1) algorithmic bias (a) biased information fed into the algorithm produces biased results and (b) a behaviour test by a large number of judges invites their biases which can result in generation of biased median; (2) a consensus on the questions may not necessarily be easy and the frame of the questions itself may be prone to encouraging bias; and (3) algorithms are limited to the precedents fed into them; they cannot easily be used in behavioural change education programming that seeks to create new law supporting the judicial role of ensuring the law changes to achieve just results as society changes. Educators can, of course, create data to support this kind of programming but it is time consuming and expensive.</p> <p>The challenges include (1) the need for judicial educators to become familiar with the science behind AI and learn its vocabulary; (2) AI programmes for judicial education will require a sophisticated self-learning algorithm which means human resource, time and expense; (3) some rudimentary training for data entry will be required; and (4) analysis of answers which are beyond Yes and No will be a challenge</p>



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	<p>in the initial stages of the programme.</p> <p>The advantages of AI include (1) big data collected over months and years will speed up the evaluation process; (2) the algorithm is scalable in the sense that it will not be limited to only one Bangalore Principle - an analysis of a combination of Principles is possible; and (3) the scalability can encompass the judgment itself and not only the judge.</p> <p>The presenters demonstrated an AI assisted judicial education programme using the comprehensive Indian Judiciary database. (It took 3.5 years to read, analyze and apply Machine Learning and Natural Language Processing through more than 3 million Indian Court judgments of Supreme Court and High Courts to create the database.)</p>
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IV. BACKGROUND INFORMATION ON THE TOPIC:

More efficient court processes that lessen the opportunities for corruption, lessen process delay and support just decision making are worldwide objectives of judicial modernization and reform. The use of artificial intelligence is a new and potentially extremely effective tool to achieve this result. Algorithms can be written to improve most if not all of the steps in the judicial process.

However, there are grave ethical issues that arise in the writing and application of algorithms to make the judicial process more efficient. These must be identified and responded to remedially to ensure the efficiency artificial intelligence can bring to the justice system enhances not impedes just results.

V. SUMMARY OF THE SESSION:

The session described the CJEI journey searching for a more effective way to teach judicial ethics and standards via distance learning. It searched for a way using less time of judge teachers in assessing responses; a way that stimulates and maintains participant interest and involvement and a way that achieves greater reach. The journey explored how best to teach behavioural change education through machine learning and AI assisted programming, learning the advantages and limitations of both.



The lessons learned in the journey and discussed in the session were:

1. Most judges do not understand AI or even have the language skills to learn about it. So judges have to learn the language to have conversations with those needed to help us with the technology.
2. AI is useful for courses that require learning areas of the law based on precedent or legislation. This is the great value of AI, - its ability to quickly research and analyze the law fed into it. AI requires large data sets. If judicial educators want to use existing databases, permission (and possibly a fee) will be required to do so unless the database is owned by the judiciary.
3. To teach other courses, one is able, of course, to create data sets. This is, however, time consuming and costly.
4. If the programme objective is to make change to improve the justice system or judicial behaviour, you likely cannot look to the past or precedent. This kind of change training is called behavioural change education. Among other issues, it is about getting judges to recognize their own biases (both hidden and overt); compensate for them in their fact finding and decision making; and learn to change to accommodate contemporary needs and values so as to make the law more just. In such cases, AI assisted programming generally requires you to create your own data, so machine learning may be preferable to AI.

Other issues discussed included:

1. How AI can be used to assist the decision-making process by extracting key elements in judgments.
2. How potential unfairness in algorithms which are based on historical data (data mining) be prevented or remedied. Reference was made to forthcoming reports on AI and the justice system in the UK, Australia and Canada.
3. Pictorial PowerPoint used as a teaching tool attracted greater attention than word slides.
4. Value of behavioural change education for sustainable judicial integrity (both individually and institutionally).
5. Use of machine learning and AI assisted programming for teaching the Bangalore Principles so as to achieve behavioural change.
6. In light of advanced technology, the role of the judge is changing. It will place less emphasis on judicial fact finding and legal research and more emphasis on judicial oversight of ensuring the use of technology does not produce an unjust result. The changing role requires judicial education to illuminate this path.



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VI. HOW THE SESSION SUPPORTS THE OVERALL OBJECTIVE OF THE GLOBAL JUDICIAL INTEGRITY NETWORK OF STRENGTHENING JUDICIAL INTEGRITY AND PREVENTING CORRUPTION IN THE JUSTICE SYSTEM:

It enhances and advances the reach, quality and impact of judicial education in this area by use of machine learning and AI teaching tools.

VII. PROPOSED OUTCOME(S) OF THE SESSION AND THEIR ACHIEVEMENT:

The following proposed session outcomes were achieved:

1. Increased understanding of the advantages and disadvantages of using AI in the justice system.
2. Identification of ways to use AI in the judicial system without jeopardizing the first judicial principle of fairness.
3. Increased understanding of the need for behavioural change education and its importance when AI assisted decision making is part of the judicial process.
4. Demonstration of an interactive AI supported judicial education programme; demonstration of a machine learning supported programme based on the Bangalore Principle of Equality.
5. Identification of the cost of preparing AI assisted judicial education tools and the need to minimize this cost by developing them regionally and internationally for common use of all judicial education bodies.

VIII. CONCLUSIONS OF THE SESSION AND RECOMMENDATIONS TO THE GLOBAL JUDICIAL INTEGRITY NETWORK:

1. Judicial education that specifically targets behavioural change is integral for the teaching of judicial ethics for sustainable transformation. Support is required for increased development of AI and machine learning teaching tools for behavioural change judicial education programmes.
2. The use of machine learning and AI should be further explored as teaching tools for the effective delivery of judicial education training on the Bangalore Principles. The use of these tools would greatly enhance the reach, quality and impact of programming in this area.



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3. In light of the high cost of preparing AI assisted judicial education tools, there is a need to minimize this cost by developing them regionally and internationally for common use of all judicial education bodies.
4. Development of judicial education programmes to alert judges to the potential use of algorithms which may cause unfairness in judicial decision making and in the justice system, and remedial recommendations. This must include emphasis of the importance of the judicial role in assessing and disclosing unfair results resulting from the use of algorithms.

IX. ADDITIONAL OBSERVATIONS:

1. The work of UNODC in preparing the document on judicial appointment is laudable. However, it would be much strengthened by including a list of human qualities essential for the judicial role against which candidates could be assessed. Many countries have already undertaken the preparation of such a list which has improved the quality of the judges appointed.
2. There is a need for the preparation and delivery of additional judicial education training:
 - (a) in the use of AI to strengthen the judicial process by eliminating causes of delay and improving the quality of justice; and
 - (b) in developing AI and machine learning judicial education tools to extend the quality and reach of behavioural change judicial education to support the application of the Bangalore Principles.