AI Tools for Research and Academic Excellenc

A Workshop for BCSA Members

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### **Key Learning Objectives**

1. **Understanding AI in Teaching, Learning and Research**  
   Gain a foundational understanding of AI and its uses in education/research/public policy, with a focus on personalized learning, assessment, and student support.
2. **Adopting AI in Education and Public Policy**  
   Learn how to incorporate AI tools in teaching and learning processes to improve student outcomes, engagement, and institutional efficiency.
3. **Practical AI Tools for Educators and Administrators**  
   Develop skills in using specific AI tools like **ChatGPT** and **Bard** for tasks such as creating personalized learning experiences, grading assignments, and analyzing student performance.
4. **Real-World Application and Role-Based Learning**  
   Tailor the learning experience with practical exercises based on participants’ roles, ensuring relevance to their daily work.

### **Workshop Agenda**

#### **Session 1: 9:00 AM - 11:00 AM**

**Introduction to AI and Basic Terminologies**

* What is Artificial Intelligence (AI)?
* Overview of AI Tools in Higher Education: ChatGPT, Claude, Copilot, Gemini, Literature Review AI and Data Analysis AI.
* AI Applications in Higher Education: Personalized Learning, Assessment, Student Support.
* Basics of Big Data and Large Language Models (LLMs).

#### **Q&A Session: 11:00 AM - 11:15 AM**

#### **Session 2: 11:15 AM - 1:15 PM**

**Prompt writing and reading AI tools**

* **Generative AI for Policy Briefs:**
  + Learn how AI tools can generate policy briefs, economic reports, and other written content.
* **Effective Prompt Writing:**
  + Practice writing prompts for AI tools to generate policy recommendations and fiscal analyses.

**Role-Specific AI Applications and Hands-On Learning**

* **Tailored Content:** Customize exercises for different roles (budget analysts, policy advisors, tax experts).
  + Participants work with role-based AI scenarios, simulating policy decisions (e.g., tax adjustments, fiscal deficit control).
* **Live Demonstrations:**
  + Interactive sessions showcasing how AI tools can simulate economic scenarios and guide decision-making.
* **Group Work:**
  + Groups tackle fiscal policy challenges using AI, presenting their analyses and solutions.

#### **Session 3: 9:00 AM - 11:15 AM**

**Integrating AI into Data Analysis and Research**

* **Strategies for AI Adoption in Research:**
  + Learn how to integrate AI tools into research processes
* **Case Studies:**
  + Analyze current research issues using AI tools to predict outcomes and propose data-driven solutions.
  + Hands-on experience with AI tools for literature review, data analysis, and research writing.

#### Session 4: 11:15 AM - 1:15 PM

**AI Tools for Literature Review and Data Analysis** - **Literature Review AI:**  
- Learn how AI tools can streamline literature review processes, identify research gaps, and generate summaries.

* **Data Analysis AI:**
  + Hands-on experience using AI tools to analyze research data, generate insights, and visualize results.
* **Policy Analysis and Recommendations:**
  + Use AI tools to analyze policy data, generate insights, and develop recommendations for policymakers.

#### Hands-On Exercises and Group Work

#### \*\*Q&A Sessions

### **Workshop Outcomes**

By the end of the workshop, participants will: - Understand how AI can improve their work as teachers, researchers, and policymakers.

* Gain hands-on experience using AI tools for lecturing, research, and policy analysis.
* Be able to advocate for AI-driven solutions within their institutions and communities.