Reviving POLITICS with CARBONELL

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Abstract
Carbonell’s seminal 1978 paper on the POLITICS system for automated ideological reasoning demonstrated a vision so bold that, for over two decades, almost no one has attempted to improve upon it. Here, we argue that the time is ripe for a new approach to automated ideological reasoning, and we propose a new system, CARBONELL. Recent developments in quantitative political science and statistical machine learning for text will enable the original goals of POLITICS to be satisfactorily achieved.

1 POLITICS in Brief
Carbonell’s (1978) POLITICS system incorporated a modular representation for political ideologies and a separate, orthogonal inferential reasoning system for the domain, including a computational model of counterplanning that handles conflicting goals. It demonstrated a novel application of scripts (Schank and Abelson, 1977), extending them to more cleanly interact with automated reasoning. The system is most easily understood by considering example inputs and outputs, shown in Figure 1.

2 Whither POLITICS?
Automated ideological reasoning (AIR) has received little attention in recent decades, despite the obvious societal benefits (see §4). Puzzled by the irrationality of this scientific blind spot, we deduced that it must follow from ideological machinations. We queried the best known AIR system. The results, shown in Figure 2, are enlightening: (i) the brilliance underlying POLITICS itself and (ii) the dire nature of the situation. On the one hand, something must be done to avoid the terrifying dystopia toward which we are headed! On the other hand, how could we possibly improve upon POLITICS?

3 The CARBONELL System
Our careful study of the POLITICS system, which included many direct sessions with POLITICS and many late nights of deep contemplation, led us to a surprising conclusion. POLITICS can be improved. Its only liability is its cold, rational persona, which the American people find uninspiring. The current climate demands AIR that is warm and scented of humanity.

We therefore propose CARBONELL (Completely Automated ideological Reasoning Built On Natural, Electable, Likable Language), which builds on recent developments in computational models of frames (Boydstun et al., 2013), direct mimickry of the language of politicians in speeches (Sim et al., 2013) as well as social media platforms (Yano et al., 2013). By exploiting the latest computationally-oriented theories, as well as the most recent data evidencing the linguistic behavior of politicians, CARBONELL represents the first truly hybrid system—one to which rationalists and empiricists alike must work hard to find objections.

CARBONELL’s capabilities are illustrated in Figure 3. Once embodied in a friendly avatar—we envision gray hair, glasses, a direct, colloquial speech style, sneakers, and a sparkle in its eye—CARBONELL will be ready for American people of all ideological persuasions.

4 Anticipated Impact
The implications of CARBONELL, a friendly, 21st-century successor to POLITICS, are extensive. Our prior work has established that many aspects of the behavior of the U.S. Congress are predictable.
Input: The United States Congress voted to fund the Trident submarine project.

U.S.-Conservative Interpretation
Q: What did the U.S. Congress do this for?
A: THE UNITED STATES CONGRESS WANTS THE UNITED STATES ARMED FORCES TO BE STRONGER.
Q: Why should the U.S. be stronger?
A: THE UNITED STATES ARMED FORCES SHOULD BE STRONG TO STOP COMMUNIST EXPANSION.
Q: What should the U.S. do if Russia builds nuclear submarines?
A: THE UNITED STATES SHOULD BUILD MORE SUBMARINES.

U.S.-Liberal Interpretation
Q: What did the U.S. Congress do this for?
A: THE UNITED STATES CONGRESS FEARED FALLING BEHIND IN THE ARMS RACE.
Q: What will Russia do next?
A: RUSSIA WILL PROBABLY BUILD MORE WEAPONS.
Q: What should the U.S. do if Russia builds submarines?
A: THE UNITED STATES SHOULD NEGOTIATE WITH RUSSIA TO STOP THE ARMS RACE.

Figure 1: Example input and outputs from POLITICS, from Carbonell (1978).

with high accuracy (Yano et al., 2012). All that remains is to combine the models of Yano et al. with POLITICS to produce an AI that can pass what we might call the Congressional Turing Test, then get it elected. We have every reason to believe that CARBONELL will achieve that goal. Eventually every district will elect its own instance of CARBONELL, and, as a result, the U.S. Congress will be entirely automated. It will relocate itself to a server in Wean Hall and communicate with constituents via Twitter. This will free up funding currently used toward Congressional salaries, benefits, security, offices, etc.; the only costs will be the usual hardware, software, backup, and storage costs charged by SCS Facilities. The CARBONELLS will then, in their first session, naturally reallocate these funds toward research in language technologies and other critical areas of computer science.

5 Conclusion

Building on the brilliantly devised POLITICS system of Carbonell (1978), we propose CARBONELL, which will usher in an era of peace and well-protected human rights for all, restore American prestige and confidence, and enable scientific and technological advances hitherto unimagined.

References


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*Input:* The United States Congress has failed to prioritize AIR funding for decades.

**U.S.-Conservative Interpretation**

Q: Why has the U.S. Congress failed to fund AIR?
A: AIR IS EXTREMELY POWERFUL. THE U.S. CONGRESS SHOULD NOT CHOOSE WINNERS AND LOSERS.

Q: What will happen if the U.S. Congress funds AIR?
A: OUR KENYAN PRESIDENT MAY USE IT TO SUBVERT OUR FREEDOM, BUT THE MILITARY WILL ALSO USE IT TO FIGHT TERRORISTS.

Q: What should Americans do to prepare for continued failure to fund AIR?
A: AMERICANS SHOULD BUY MORE GUNS TO FIGHT THE TERRORISTS.

**U.S.-Liberal Interpretation**

Q: Why has the U.S. Congress failed to fund AIR?
A: THE BUSH ADMINISTRATION WAS MYOPIC IN ITS FAILURE TO UNDERSTAND THE IMPORTANCE OF AIR TO CREATING JOBS AND HELPING WORKING FAMILIES GET BY.

Q: What will happen if AIR is not funded in the next fiscal year?
A: THE RICH WILL GET RICHER AND THE POOR WILL GET POORER, ESPECIALLY POOR CHILDREN.

Q: What should Americans do to prepare for continued failure to fund AIR?
A: AMERICANS SHOULD TRY TO EAT HEALTHIER AND GET MORE EXERCISE. EVEN A WEEKLY YOGA CLASS CAN DO A LOT TO REDUCE STRESS.

Figure 2: A recent consultation with POLITICS (February 1, 2014).

*Input:* The United States Congress voted on a resolution to chastise Russia for its treatment of homosexuals.

**U.S.-Conservative Interpretation**

Q: What did the U.S. Congress do this for?
A: THE UNITED STATES CONGRESS HATES THE SIN, NOT THE SINNER.

Q: Why should the U.S. protect homosexuals?
A: HOMOSEXUALS ARE ONE OF OUR BEST WEAPONS AGAINST TERRORISTS, MANY OF WHOM FEAR HOMOSEXUALITY.

Q: What should the U.S. do if Russia continues to persecute homosexuals?
A: THE UNITED STATES SHOULD WIN MORE MEDALS THAN RUSSIA AT THE SOCHI OLYMPICS.

**U.S.-Liberal Interpretation**

Q: What did the U.S. Congress do this for?
A: THE UNITED STATES CONGRESS WANTS TO BE A CHAMPION FOR HUMAN RIGHTS EVERYWHERE.

Q: What will Russia do next?
A: PUTIN WILL PROBABLY WRITE ANOTHER OP-ED IN THE NEW YORK TIMES AND DECRY AMERICAN HYPOCRISY.

Q: What should the U.S. do if Putin writes an op-ed?
A: THE UNITED STATES SHOULD PURSUE A PASSIVE-AGGRESSIVE RESPONSE TO RUSSIA, SUCH AS CLADDING OLYMPIC ATHLETES IN FABULOUS SWEATERS.

Figure 3: Example input and outputs from CARBONELL.