Ar:Ca:De

Argument Card Debate Games for Critical Thinking

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Why Start? An Introduction Anybody can argue, and we do- from Facebook di

Anybody can argue, and we do- from Facebook disputes to YouTube comments to televised political debates- the trick however is in listening to the other side and discourse well. The demand for this skill grows as social media debates begin to shape people's political stances; that is if the claims around the new "post-truth" era we have entered are to be believed. Fortunately, studying, distilling and creating structures for "Strong" and "Weak" arguments is the basis of argumentation theory.

ARG@ENU

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Argument from expert opinion
We often have to accept

An example of an Argument Scheme

me to analysis the arguments or and against it.

E knows if P is true | E would truthfully assert what s/he knows about P.

E is an expert on subject Q.

It is something an expert on Q would know.

Background: A little bit about argumentation theory

The field of argumentation is over 2000 years old, ranging from Aristotle to the present. Based in Discourse theory, academics have developed popular structures people use to make arguments. Doug Walton coined these as "Argumentation Schemes' these are the foundation behind the Argu-Cards and are how they are created.

Project Aims: Where we are and where we plan to go The project is still at very early stages, however the aim is to

- produce printable cards available from http://arg.napier.ac.uk
- Develop the game rules, testing and creating new game cards as required
- Launch the web application version of the game August 2017

An Argument Map: this is used to make the individual argument Cards

cheme Used: Argument from Expert Opinion

this map, Player A is presenting a support theory and is using the Argument from Sign

	Stage 1 Game play- initial arguements Alternative theory/Support		Stage 2- Dialogue Counter/Evidence /Rebuttal		
Claim					Evidence/Rebuttal/Evidence
	Alternative theory	Support	Evidence/Counter	Rebuttal/Evidence	
	Player A: Even experts such as well known former NASA Scientist Dr Roy Spencer are skeptical of climate change		Player A(Counter): 31,000 scientists signed a petition saying that climate change is not real, why would they do that if it were not true?		Player A (Rebuttal): Scientists like Roy bencer as we as others who believe in global varminThe Argu-C that as recently as 2015 the earth was not growing warmer. We should trust the Each place combined opinions of experts.
.Premise: Climate Change is Not real					• You m
		Player B: 97% of Scientists		Player B(Evidence):	• The gai
		have agreed that climate change is a real phenomenon		Temperature data recorded by NASA gives clear evidence that the earth's climate is growing warmer	• Each play

Game Rules: Where the fun is

The Argu-Cards are crafted for flexibility with no strict rules beyond these basic game mechanisms:

- Each player must at least have 4 cards dealt to them at the beginning of the
- You must play at least 4 cards before you can end the game, not doing so forfeits the game
- The game begins by flipping a coin to choose the starting player, they put down a card to start.
- Each player continues to put down cards from their decks, picking a new card at will to match the argument they are making.

The Development: All the tech

The future of Ar:Ca:De is Online.

- The game will exist as a single page application using Html 5 and d3.js —handy for moving around cards to visualise data more easily.
- Server side will likely be Python rendered, purely for the versatility allowed by the language and lightweightness compared to Java.

Example of potential views in the online game

Research group website

References

Eemeren, F., Garssen, B., Krabbe, E., Snoeck Henkemans, A., Verheij, B., & Wagemans, J. Handbook of argumentation Schemes for Open Systems Dependability. 2014 IEEE 12Th International Conference On Dependable, Autonomic And Secure Computing. http://dx.doi.org/10.1109/dasc.2014.16, Kolbert, E. (2017). Why Facts Don't Change Our Minds. The New Yorker. Retrieved 3 March 2017, from http://www.newyorker.com/magazine/2017/02/27/why-facts-dont-change-our-minds, Krauthoff, T., Baurmann, M., Betz, G., & Mauve, M. (2016). Dialog-Based Online Argumentation. In Computational Models of Argumentation on the Web, In Pinkwart, N.EducationalTechnologies for Teaching Argumentation Skills, Bentham Science E-Books.(In Press), http://www.billdwhite.com/wordpress/wp-content/presentations/d3-meetup-d3-in-3D/src/treemap_threejs_css3.html, www.rationaleonline.com