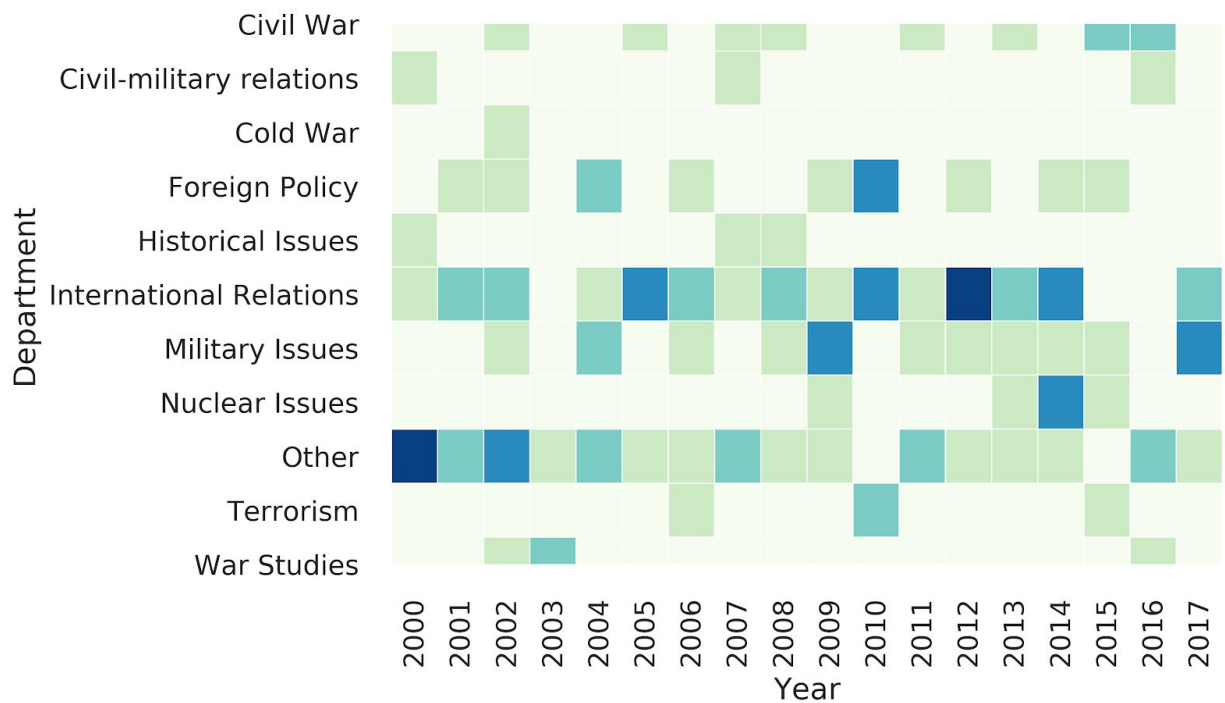


Introduction

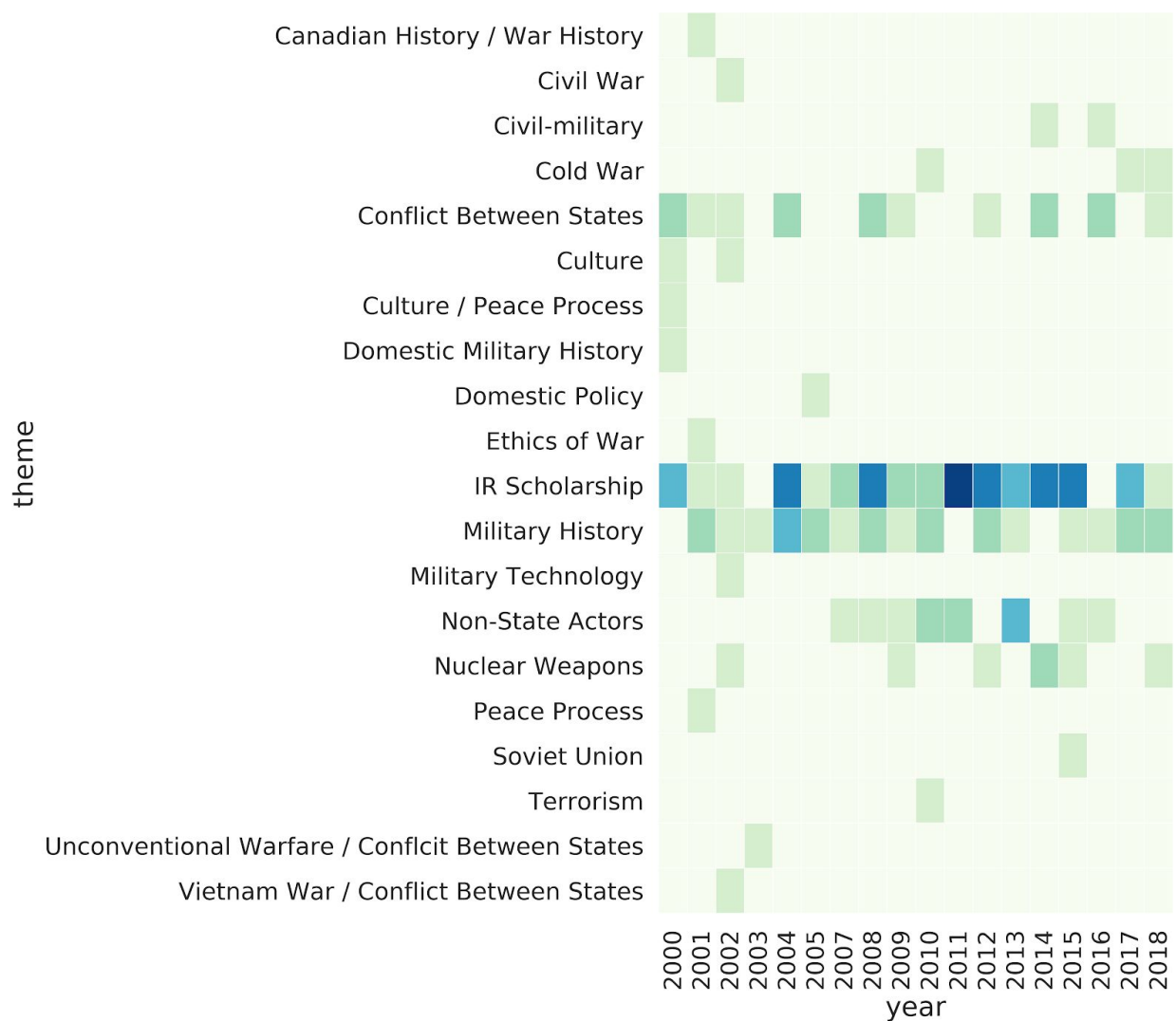
Below begins our review of almost 20 years of New Faces conference alumni and presented papers.

Changing Fields of Interest



Looking at the self-reported fields of participates lets us consider some trends at a relatively high level. Some trends that are revealed in the above heatmap include an uptick in both civil-war and terrorism as a central field of study. Conversely, Cold War as a self-described central field of study decreases over time. These trends are broadly congruent with expectations with respect to the direction of the field over this period. Most outstanding in the data is perhaps the strong and increasing identification with 'International Relations' as a principal field for New Faces alumni.

As an example of what we might gain from building on this extant data, we can consider the below hand coded themes of each fellows' abstract from 2000-2018. From the below heatmap of these themes, we can chart a growth in abstracts centered around Non-State Actors and Nuclear Weapons as well as Civil-military relations, and a decline in culture, ethics of war, and peace process theme coded abstracts. This provides an important lens into trends in security studies as found the nearly two decades of New Faces scholarship considered here.



Expansion of the Data

While the above analysis of the extant self-reported and hand-coded data gives us some sense on trends in the New Faces conference over time, much remains unclear. Clearly, to develop a better understanding of trends in the scholarship showcased by the conference, we need more than the extant data and to drill down further into trends. We can achieve this by drawing upon a new data source: the titles and abstracts of the papers presented by each fellow over the course of the New Faces conference (2000-2018).

One way we can use this new data source is by using regular expressions to search through titles and abstracts for the discussion of certain topics, for instance “Soviet Union” or “Nuclear weapons”, which allows us to trace the inclusion of those topics among the presented work of the New Faces over time. In addition to its effectiveness in examining trends over time, another merit of this approach is that it is very expandable and lends itself to easily being applied to tracing the use of any other concepts of interest over time with just a few lines of code. It is also of use for expanding this analysis into the future as the New Faces conference continues.

The next way that we can use the title and abstract data is to consider overall word frequencies overall and over time as well.

Finally, we are able to use the abstract data within a Latent Dirichlet Allocation (LDA) topic model, an unsupervised machine learning technique, to identify the five most common topics across all the abstracts from 2000-2018. We will consider each in turn.

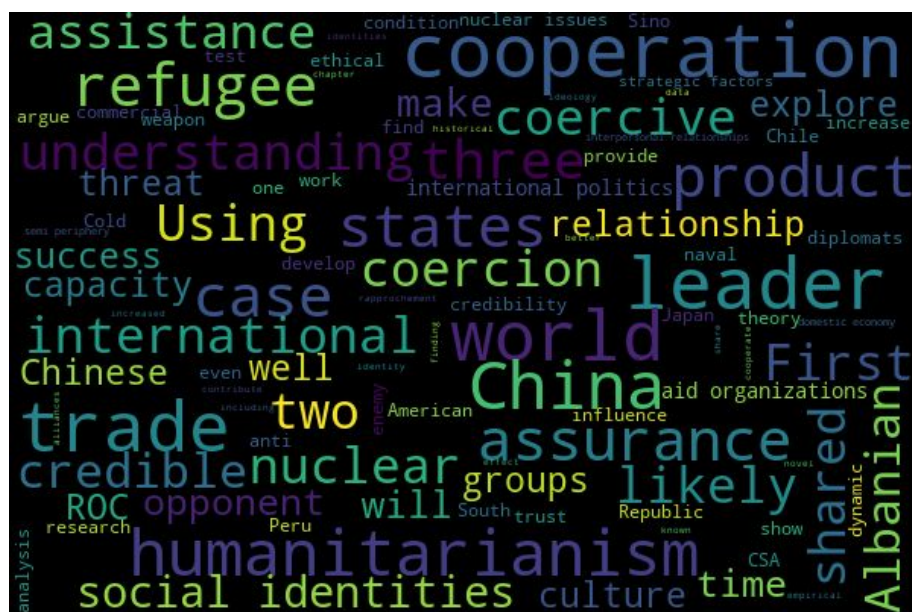
Word Frequency

First, with regard to word frequency. Overall we can see that the words and phrases that garner the greatest number of mentions across all abstracts include words like American and United States, military, political, leader and preference and phrases like military institutions and civil military.

Word Cloud: Overall



Word Cloud: 2018



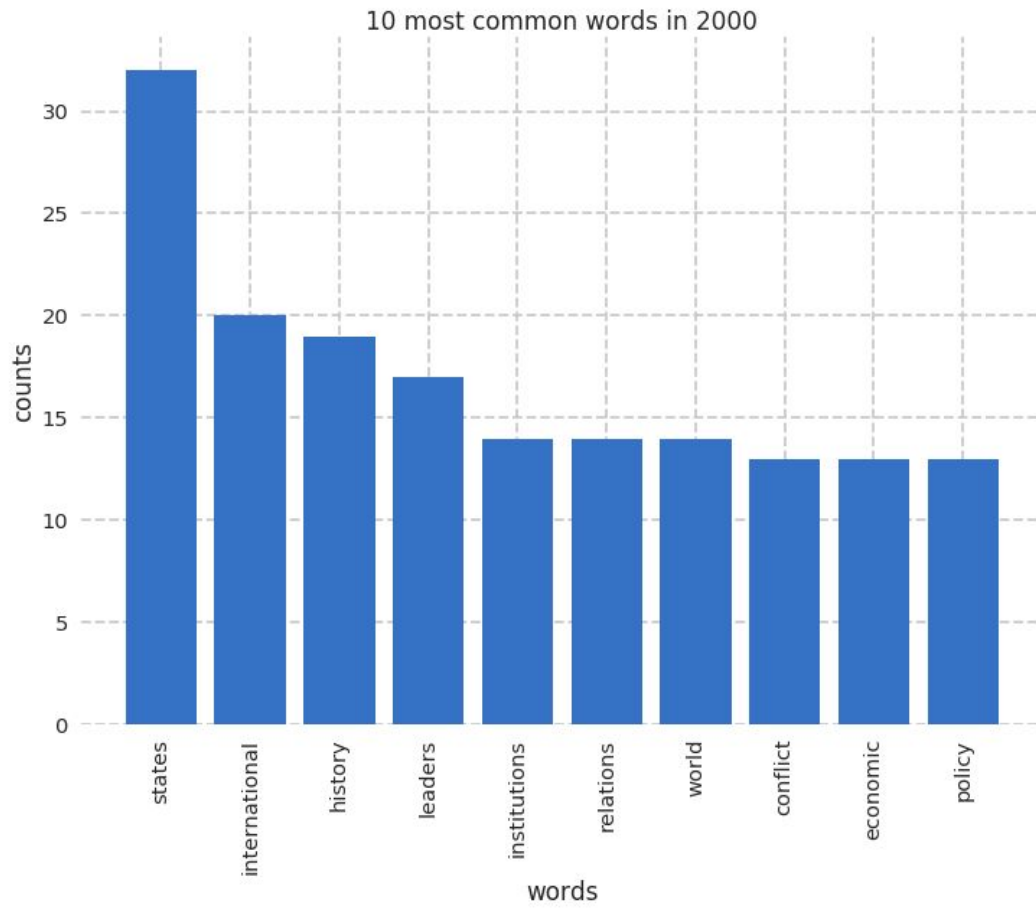
Word Cloud, Title: Overall



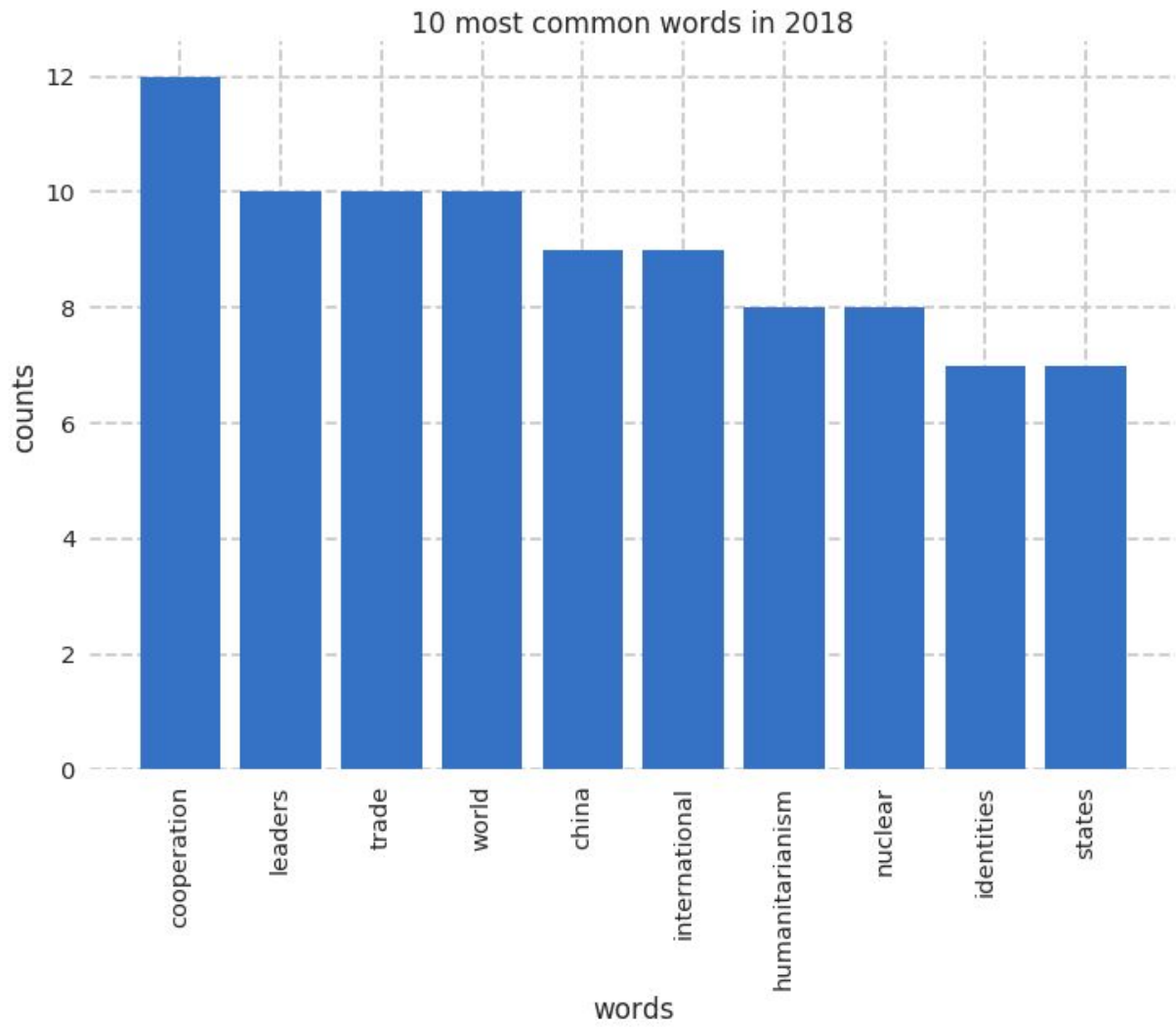
Word Counts in the abstracts

To get an augmented sense of how word usage evolved over time we can also examine the word counts for the first and final year of the New Faces data, visualized below.

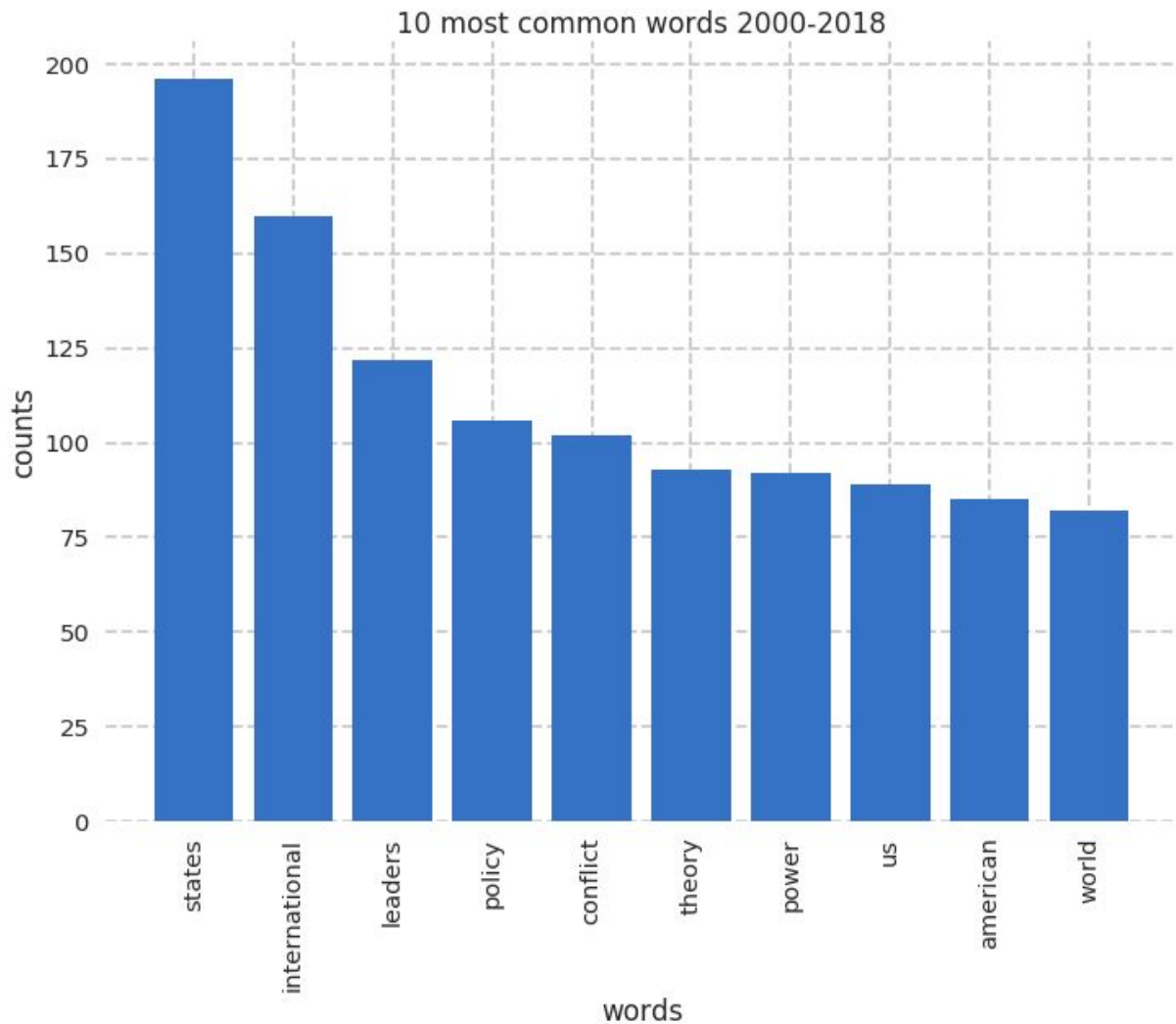
Word Counts: 2000



Word Counts: 2018

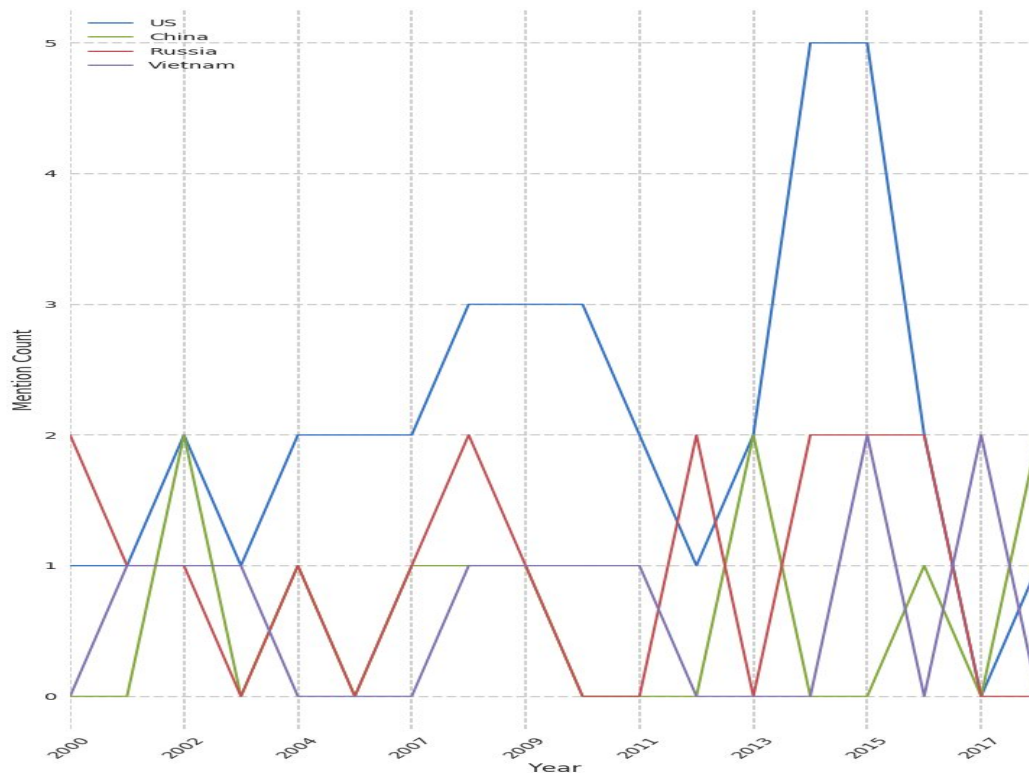


Word Counts: Overall



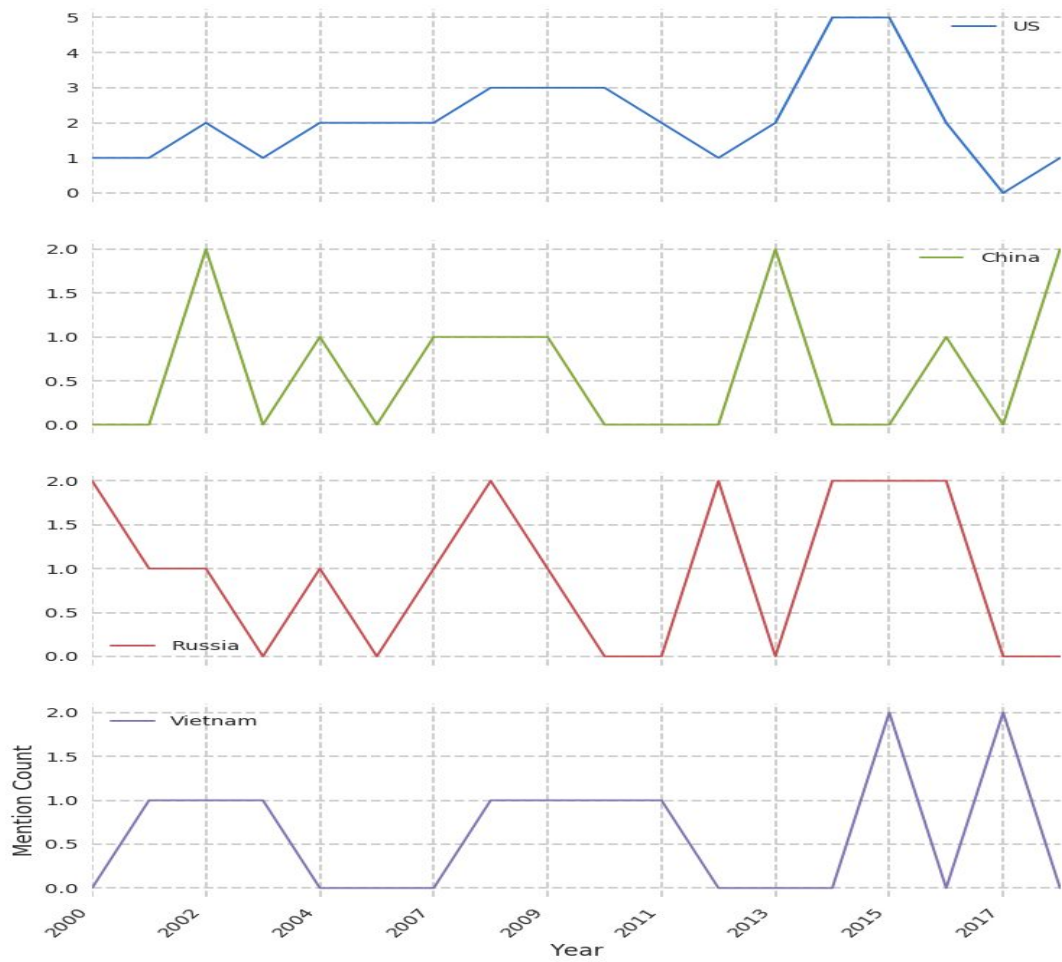
We can see that in 2018, focus has shifted to issues like China, trade and humanitarianism, which were not as present in 2000, at the inception of the conference, and away from history to some extent. War and military related issues remain perennial concerns, a fact which is also reflected in the overall word count from all abstracts (2000-2018).

Topic word mentions in abstracts

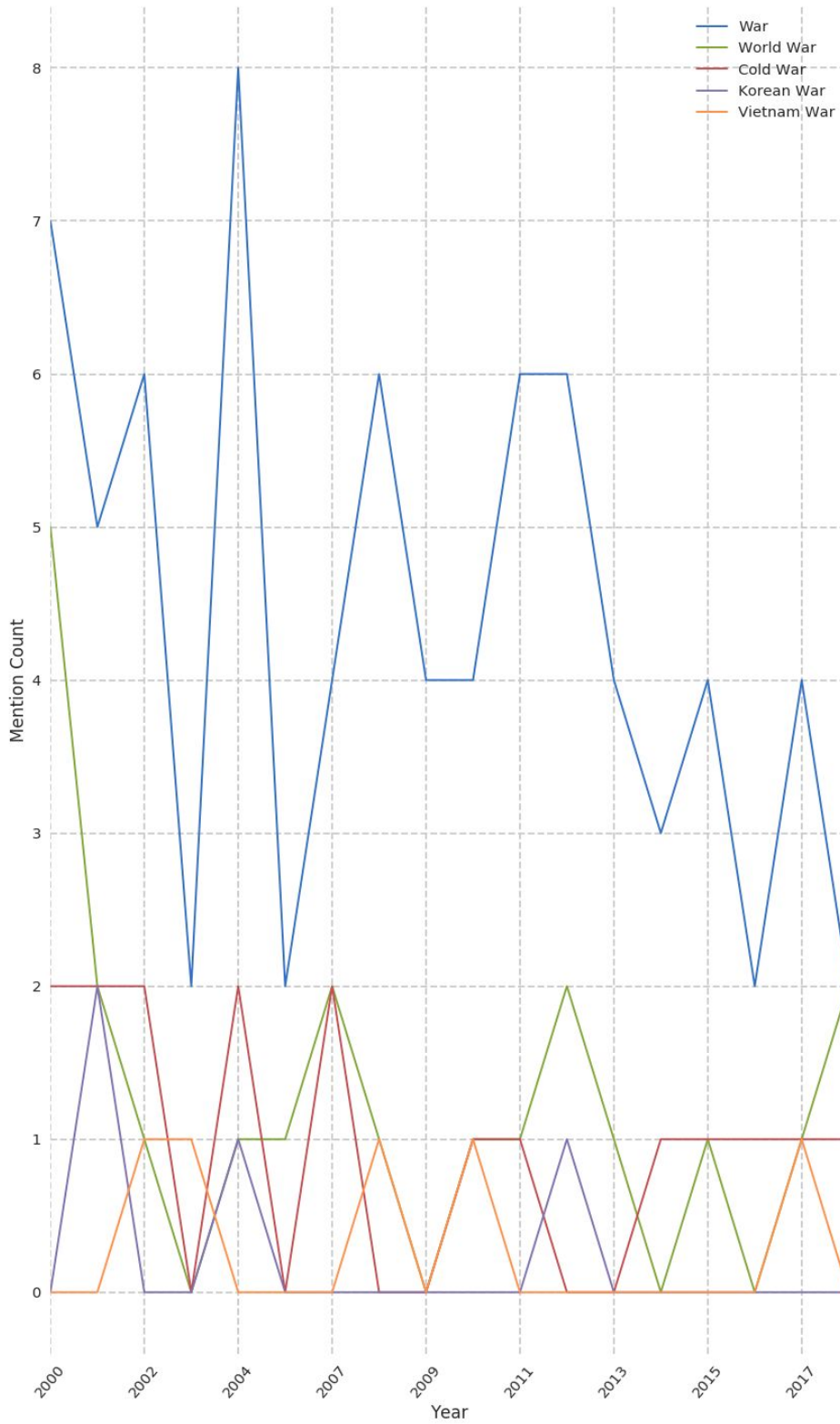


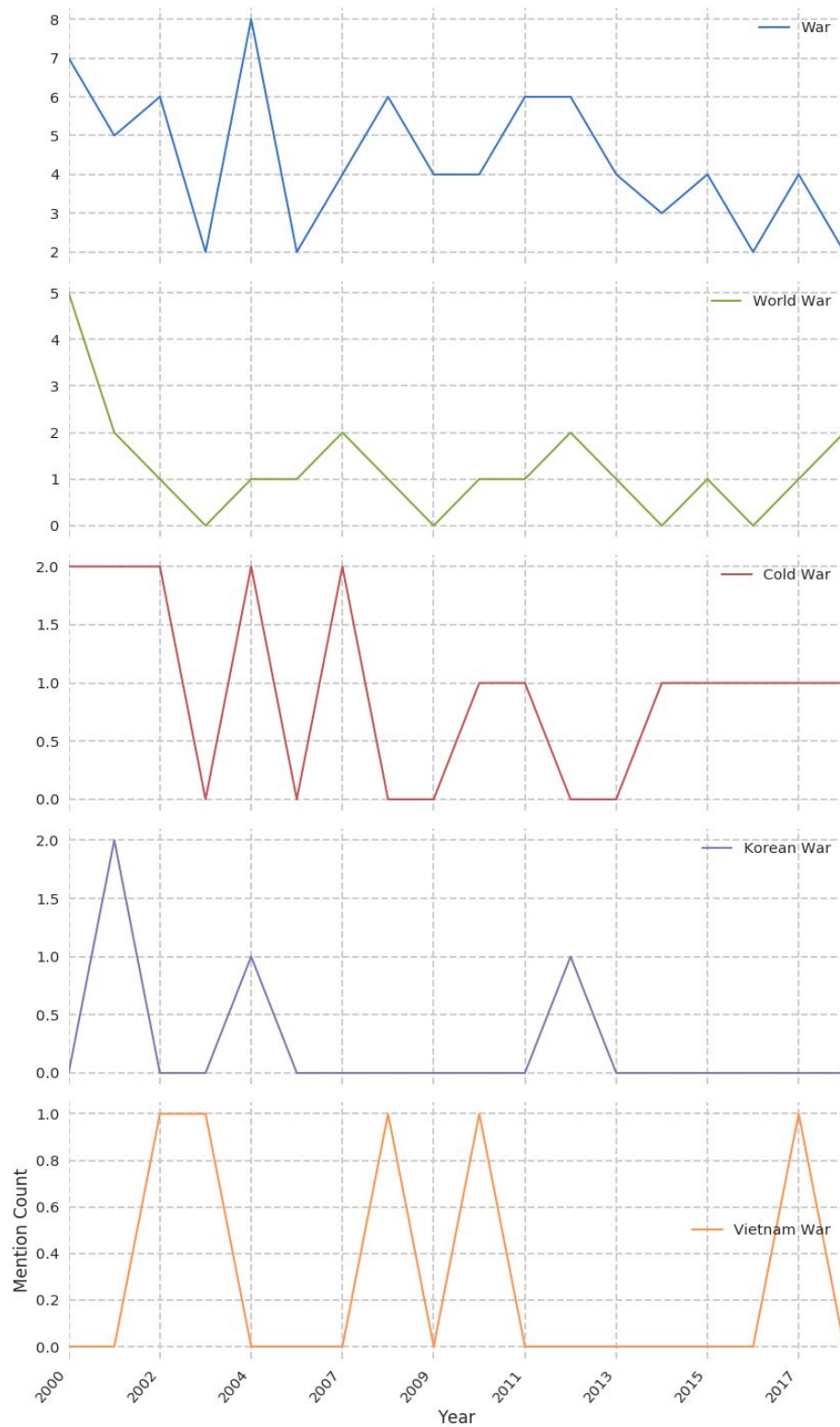
Country mentions

To take a broad view of how much attention different countries and wars have received in the scholarship of the New Faces over time, we consider the mentions of several countries and wars in their research abstracts from 2000 to 2018. From the visualizations, we can see that until recently, the US received the greatest share of attention from scholars compared to Russia, China and Vietnam.



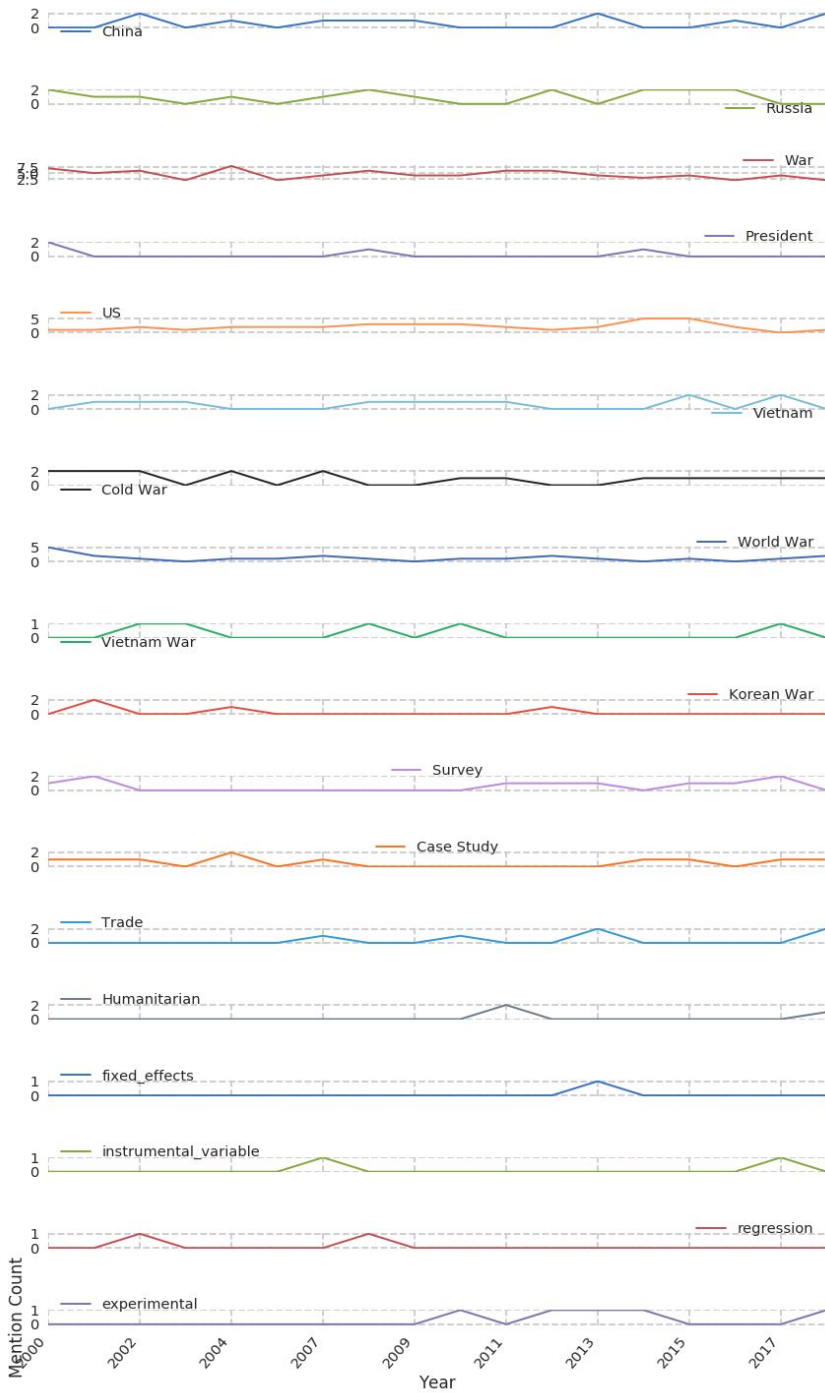
War mentions





With respect to war mentions, we find that World Wars in the early years of the conference receive the greatest attention from scholars, but that attention attenuated in the contemporary period, as has mentions of the Korean war.

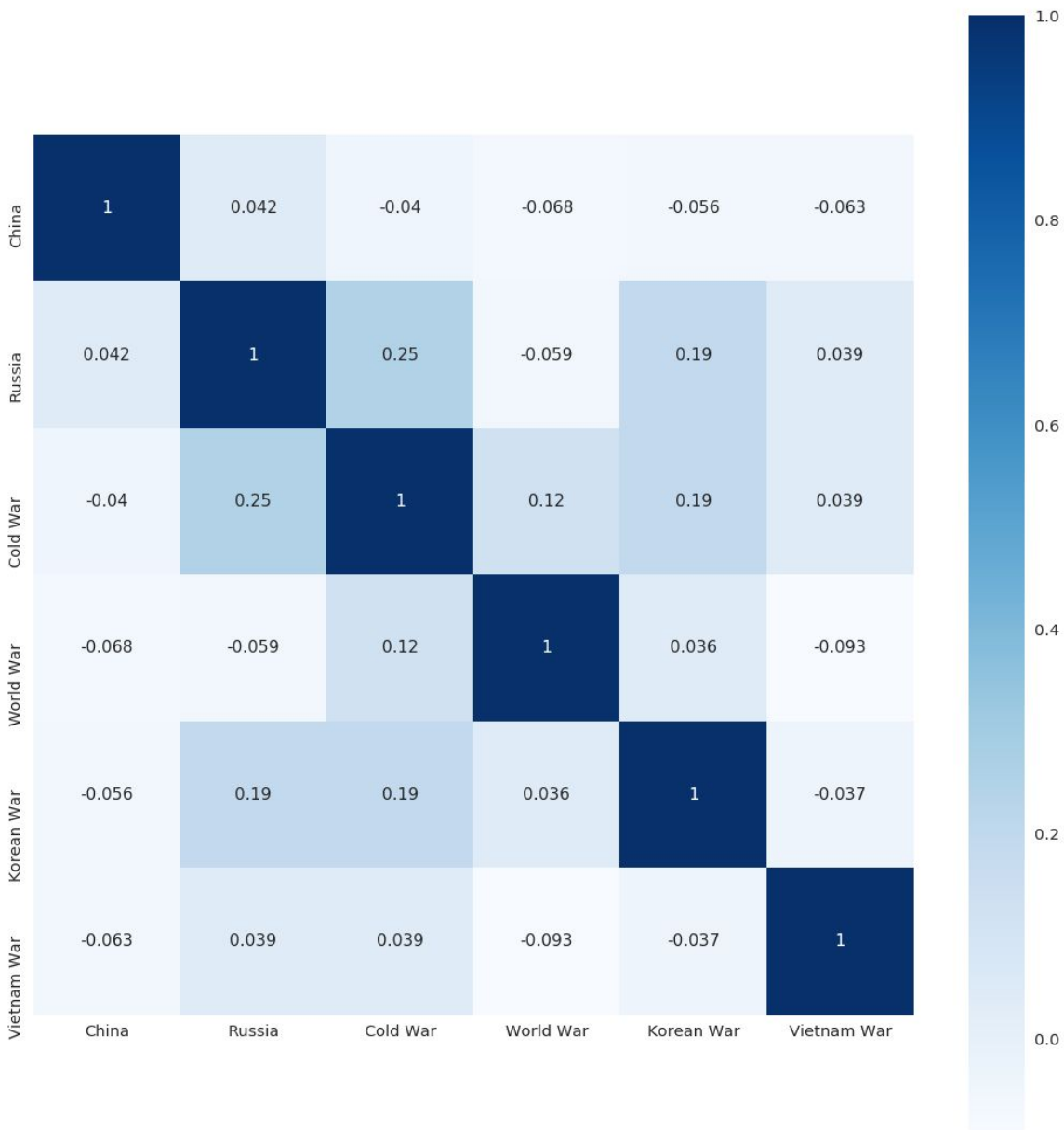
Additional Mention Features



Looking at a broader array of mention features, we can see that trade and humanitarian issues grow in mentions over time and that case studies, while potentially declining in popularity to some extent, remain in use. Surveys, similarly remain in use for fellows in the contemporary period.

Correlation Matrix

Looking at a correlation matrix of the mention features, we find that paper abstracts which mention the Cold War are also likelier to mention Russia, the Korean War and a World War, by 25, 19, and 12 percent doing so, respectively. Such paper abstracts are less likely to mention China, than those that don't mention the Cold War.



LDA topic model

Finally, we will consider our Latent Dirichlet Allocation (LDA) topic model. A type of natural language processing, LDA is “a generative probabilistic model for collections of discrete data such as text corpora. LDA is a three-level hierarchical Bayesian model, in which each item of a collection is modeled as a finite mixture over an underlying set of topics” (Blei, Ng,

Jordan (2003)). The five topics provided by the LDA model, as labeled by me are the following:

The use of military force, and the cessation of that use (Topic #0: military talk conflict world navy making mediation labor), The Cold War and the struggle between Democracy and Communism (Topic #1: war military cold vietnam conflict world state civil) State-to-State Relations/Sovereignty and its limits (Topic #2: relations war state international power political enforcement states) The US and Security Peace and Conflict (Topic #3: war world united states army violence peace international) and Nuclear Weapons and International Security (Topic #4: international policy nuclear foreign politics military security power)

Three takeaways:

Topically, there appears to be growth of some topics like trade, humanitarianism, civil-wars and terrorism and a decline in others like the Cold War and the World Wars, which makes sense.

Thematically, we find a growth in paper abstracts centered around non-state actors and Nuclear Weapons. Civil-military relations themed dissertation abstracts are also more common in recent years. Culture, ethics of war, and peace process theme coded abstracts, on the other hand, have become less common in more recent years.

We can learn a lot about lots of text data like abstracts or in principle the dissertations on which they are based, which would be difficult for a human to review using unsupervised learning techniques like LDA, we can get a sense of the topics that are most important in the field and among New Faces scholars.

Selection Effects and Broader Conclusions about the Field

When making broader conclusions about the field of International Relations and security studies, we should expect selection effects to impact our present data given that New Faces conference participants are not necessarily a representative sample of the population of International Relations scholars as a whole. For instance, their presented paper is drawn

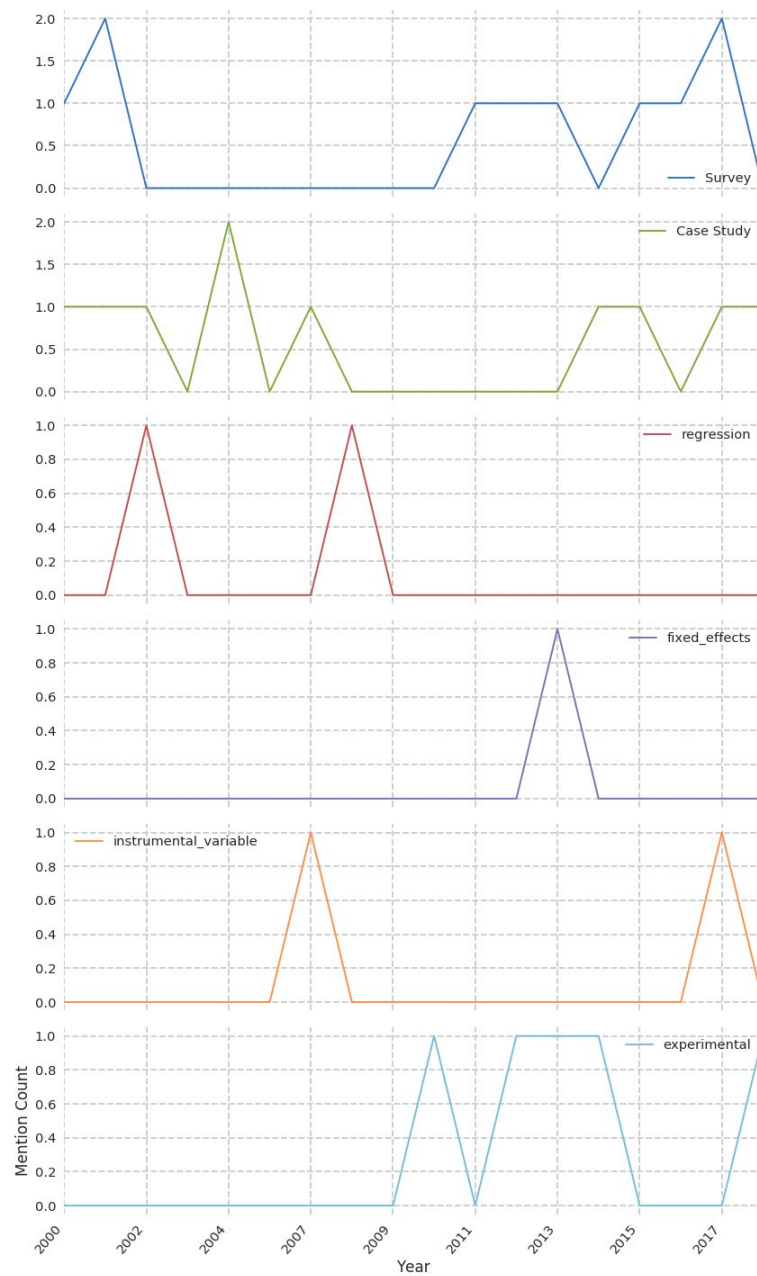
from their doctoral dissertation, which is developed at the beginning of their scholarly career. Accordingly, some changes in the presented work of the New Faces might take a number of years to be reflected in the International Relations community more broadly. There may be other ways in which conference attendees are not representative of the field as a whole, which would impact the data-generating process as well as the generalizability of the conclusions made here.

With this caveat in mind, thematically, we can see in the data a move away from the exclusive primacy of state-to-state relations and the strong emergence of the importance of the investigation of non-state actors both salutary, humanitarian NGOs for instance, and malign, like terrorist groups. This evolution is congruent with changes in the field of International Relations in the post-Cold War period, with the augmentation of constructivist scholarship and the increased investigation into sub-national phenomena, like civil wars, and trans-national phenomenon like international trade facilitated by multinational corporations and transnational advocacy networks as well as the relative decline in importance of the realist investigation of the 'high politics' of international conflict. The importance of sovereignty and the national state, central to IR since perhaps the peace of Westphalia in 1648, is in relative decline in contemporary IR scholarship.

Methodologically, in the broader field of IR, the period of 2000-2018 witnessed the further development of the causal inference revolution, which led to the use of fewer stand alone historical case studies and the increased use of methodologies like fixed effects for panel data and a set of rigorous research designs and methodologies, including instrumental variable approaches, regression discontinuity designs, and experimental designs. These methodologies have transformed the landscape of IR and turned the discipline into a far more quantitative field than it was in the past. We can see these changes to some extent in the decline in the use of history in the abstract data.

As we can see in the subplots below, these changes are also somewhat reflected in the methodological mentions of the New Faces abstracts over time. As we can see, while surveys, a quantitative technique which can be experimental go up and down over time but case studies seem to see a potential decline over time. Furthermore, we see that while regression is discussed in the earlier years of the New Faces conference, the set of

techniques more commonly used in the post-causal inference revolution period, including fixed effects, instrumental variable approaches and especially experimental designs are much more common in the later years of the New Faces conference, which is broadly congruent with the changes in the field discussed above.



Here it is important to note that these generalizations are provisional and should be augmented with the introduction of new data to address sample size and potential selection effects.

Critically as discussed above, this work is arbitrarily expandable with the introduction of new data, and the same analysis could be run on hundreds of thousands of journal articles in the field of IR in order to get a better sense of the field as a whole, given data availability. The code for the project is available on [GitHub](#) for those interested in building on the project.

References:

Blei, David M., Andrew Y. Ng, and Michael I. Jordan. "Latent dirichlet allocation." Journal of machine Learning research 3.Jan (2003): 993-1022.