Online Ethics Center
FOR ENGINEERING AND SCIENCE

# Social and Political Conflict Subject Aid

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## Description

A short guide to some key resources and readings on the topic of social and political conflict.

## Body

Many of the social sciences – history, political science, psychology, economics, sociology, anthropology – take social and political conflict as a central topics for research. War is the extreme example of conflict that may be under study, but there are many less violent forms such as personal aggressiveness, social and economic competition, and political debate. Competition is often regarded as capable of contributing to social goods, while war is usually regarded as indicating the breakdown of social order and as, at best, a necessary evil.

Social scientists who study conflict may themselves become parties to the disputes, and their affiliations, assumptions, research methods, and results may raise ethical questions. The situation is similar in those fields of science and engineering whose practices and products can be and are put to use in situations of conflict. Many factors leading to violent outbreaks have foundations in ethnic or religious

difference. Contributions of technology to warfare are also well known and subject to ongoing controversy. Social science efforts that promote manipulation of social movements and public opinion provide another example. In these circumstances, as noted in the subject aid on human migration, researchers and practitioners will face many ethical challenges – ranging from those precipitated on battlefields or in associated civilian exposures – to those arising from cultural, economic, and political questions that need resolution before, during, and after non-violent conflicts ranging from differences over environmental to educational policies, practices, and priorities.

The fundamental questions are always:

- Do the involved scientists and engineers have interests (or are they perceived to have interests) in one or another side of a conflict?
- With what competing ethical or political ideals or processes are they most strongly associated?
- Will their work enhance or reduce conflict and violence?
- How can the ideals of peace, public welfare, and social justice be promoted?

These questions arise both in doing research and its translational applications or results. Although ethical issues have particular salience when grave consequences such as life and death can follow from different choices, there are many less extreme aspects. Issues of confidentiality provide one example. Issues of access, e.g., to a water supply or a classroom, provide another. For example, the ability to merge large data sets may result in targeting individuals based on their racial, religious or social status or health problems. A project intended to improve a community's access to water may leave women without a central forum in which to maintain social networks. Educational opportunities may be restricted to preferred segments of the population.

It's not just the populations with or on which research is done for whom particularly difficult challenges can arise. What duties of care do investigators owe to graduate students or post-doctoral fellows doing research in conflict zones? What special preparation should funders insist on when they support various kinds of research on, for instance, public health hazards or issues of biodiversity in areas where there is high likelihood of violence?

Not all and perhaps not even the majority of political and social conflicts take the form of explicit violence. Much conflict is better classified as social or political

controversy. The entries on Artificial Intelligence and Robotics, Military Technology, Human Migration, and Emerging Technologies may be of most relevance to users interested in STEM and war. For STEM and other kinds of conflict and controversy, the topics of Risk, Energy, Climate Change, Environmental Justice, and Social Justice . Law and Public Policy may have general relevance.

# Subject Overviews

**Anderson, Scott. 2016. “Fractured Lands” The New York Times Magazine. August 14.**

> This special issue reports on how the catastrophic conflicts in the Middle East unfolded, from 2003 to the present, using the perspectives and narratives of six characters in Libya, Egypt, Syria, Iraq and Kurdistan. Science, engineering and technology play important but subservient roles in the service of powerful actors – nation states, governments, and tribes and in service to the needs of individuals and families faced with catastrophe.

**Nordas, Ragnhild and Nils Petter Gleditsch. 2007. "Climate change and conflict." Political Geography, 627-638.**

> The prospect of human-induced climate change encourages drastic scenarios about food and water shortages. A number of claims about the conflicts that may then occur have surfaced in recent public debate. Climate change has so many potential consequences for the physical environment that a large number of possible paths to conflict could result. However, the causal chains suggested in the literature have so far rarely been substantiated with reliable evidence. Given the combined uncertainties of climate and conflict research, the gaps in knowledge about the consequences of climate change for conflict and security appear daunting. Social scientists are now beginning to respond to this challenge. The authors present some of the problems and opportunities in this line of research, summarize the contributions in this special issue, and discuss how the security concerns of climate change can be investigated more systematically.

**Mitcham, Carl. 2000. “Chapter 10: Ethical Engineering and Conflict Resolution” in *Engineering Ethics,* Mitcham, Carl and R. Shannon Duval,**

**ed.  New Jersey:  Prentice Hall.**

This chapter examines the ethical status of conflict resolution and compromise when technical factors may in themselves be conflicted, when social and technical factors may conflict, and when engineers and others may be faced with the need to make decisions that cannot satisfy all the factors simultaneously.  Examples from engineering and other circumstances are discussed.  The chapter covers not just conceptual issues relevant to these problems, but also practical ways to behave so as to overcome the problems.

**Blue, Ethan, Michael Levine, and Dean Nieusma. 2013. *Engineering and War: Militarism, Ethics, Institutions, Alternatives*  Synthesis Lectures on Engineers, Technology, and Society**
**http://www.morganclaypool.com/doi/abs/10.2200/S00548ED1V01Y201311ETS020**

This book investigates the close connections between engineering and war, broadly understood, and the conceptual and structural barriers that face those who would seek to loosen those connections. It shows how military institutions and interests have long influenced engineering education, research, and practice and how they continue to shape the field in the present. It considers a range of responses to the militarization of engineering from those who seek to unsettle the status quo.

**Aarne Vesilind, ed. 2005. *Peace Engineering*. Lakeshore Press.**

What opportunities are there for engineers wanting to work proactively in the promotion of peace? This book is a compilation of papers devoted to defining and promoting peace engineering, originating at a conference held at Bucknell University.

# Policy or Guidance

The Peace Research Institute Oslo (PRIO) conducts research on the conditions for peaceful relations between states, groups and people. Researchers at PRIO seek to understand the processes that bring societies together or split them apart. They explore how conflicts erupt and how they can be resolved, investigate how different kinds of violence affect people, and examine how societies tackle crises – and the

threat of crisis. PRIO researchers document general trends, seek to understand processes, and inform concrete responses.
https://www.prio.org/ Accessed September 20, 2017.

Stockholm International Peace Research Institute (SIPRI) is an independent international institute dedicated to research into conflict, armaments, arms control and disarmament. Established in 1966, SIPRI provides data, analysis and recommendations, based on open sources.
https://www.sipri.org/ Accessed September 20, 2017

US Institute of Peace (USIP) is America's nonpartisan institute to promote national security and global stability by reducing violent conflicts abroad. The staff guide peace talks and advise governments, train police and religious leaders, and support community groups opposing extremism — to help troubled countries solve their own conflicts peacefully.
https://www.usip.org/ and Fact Sheet
https://www.usip.org/publications/2017/05/impact-where-america-needs-it Accessed September 20, 2017.

**The Committee National Academy of Engineering, Advisory Group for Engineering, Ethics, and Society. 2010, *Engineering, Social Justice, and Sustainable Community Development: Summary of a workshop.* Washington D.C.: National Academies Press. https://www.nap.edu/read/12887/chapter/1. Added February 10, 2016. Accessed September 5, 2016.**

> The workshop, summarized in this volume, discussed how to achieve the following: Improve research in engineering ethics. Improve engineering practice in situations of crisis and conflict. Improve engineering education in ethics and social issues. Involve professional societies in these efforts.

**National Academies of Sciences, Engineering, and Medicine (2009). Chapter 7: Legal and Ethical Perspectives on Cyberattack. Technology, Policy, Law, and Ethics Regarding U.S. Acquisition and Use of Cyberattack Capabilities. 239-292. Washington, DC: National Academies Press. https://www.nap.edu/catalog/12651/technology-policy-law-and-ethics-regarding-us-acquisition-and-use-of-cyberattack-capabilities**

Chapter 7 focuses on the implications of existing international and domestic law as well as relevant ethical regimes for the use of cyberattack by the United States. It generally takes the view that the basic principles underlying existing legal and ethical regimes continue to be valid. Analytical work is needed to apply these principles to cyber-weapons, and it requires some specifications of the nature of cyberattack under examination. The emphasis in the chapter is on stimulating discussion.

**The National Academies of Sciences, Engineering and Medicine. 2015. *Public Engagement on Genetically Modified Organisms: When Science and Citizens Connect: A Workshop Summary*. https://www.nap.edu/catalog/21750/public-engagement-on-genetically-modified-organisms-when-science-and-citizens**

The workshop focused on public perceptions and debates about genetically engineered plants and animals, commonly known as genetically modified organisms (GMO), as an example of a contentious debate among scientists, engineers, and members of the public and policy-makers. The role of cultural values and political dispositions in acknowledging and interpreting science was a major topic in the workshop, which also examined strategies based on evidence from social science that might improve public conversation about such controversial issues.

**The National Academies of Science, Engineering and Medicine. 2002. Research Ethics in Complex Humanitarian Emergencies: Summary of a Workshop. Washington, DC: National Academies Press https://www.nap.edu/catalog/10481/research-ethics-in-complex-humanitarian-emergencies-summary-of-a-workshop Added February 10, 2016. Accessed August 10, 2016.**

Special ethical issues arise when research is undertaken in settings and on populations subjected to conflict and forced migration. This workshop summary identifies many of these issues, and delineates the many ways in which researchers, research, and research participants may be harmed or made less safe.

# Bibliography

**Laas, Kelly. 2010. Engineering and Social Justice Bibliography. OEC. Added July 19, 2010. Accessed September 5, 2016.**
**https://onlineethics.org/cases/engineering-and-social-justice-bibliography**

A collection of web resources, books and articles related to social justice in engineering.

## Rights

Use of Materials on the OEC

## Resource Type

Bibliography

## Parent Collection

OEC Subject Aids

## Topics

Social and Political Conflict

## Discipline(s)

Engineering
Social and Behavioral Sciences
Computer, Math, and Physical Sciences
Life and Environmental Sciences
Authoring Institution
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