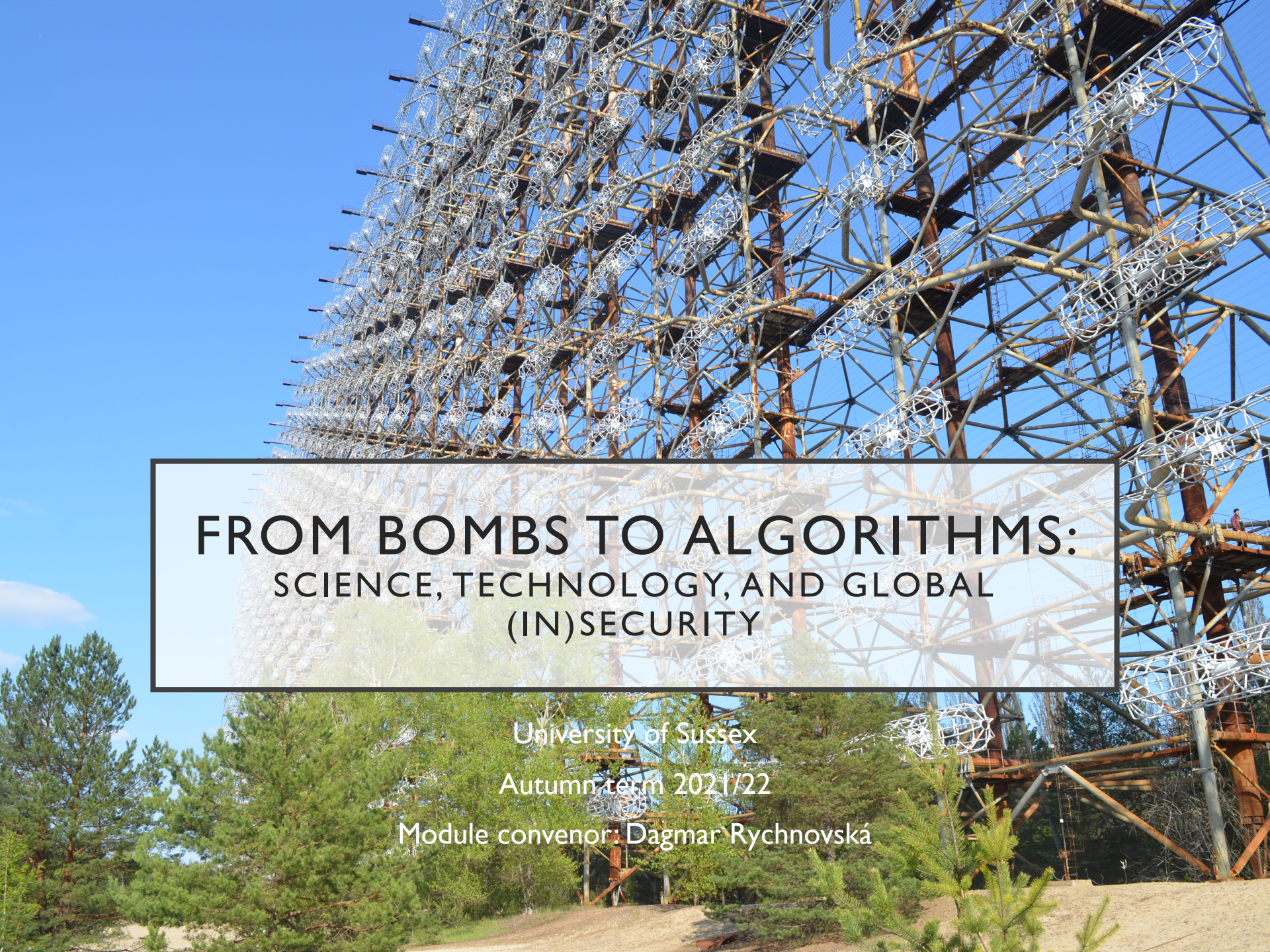

FROM BOMBS TO ALGORITHMS:
SCIENCE, TECHNOLOGY, AND GLOBAL (IN)SECURITY

University of Sussex

Autumn term 2021/22

Module convenor: Dagmar Rychnovská

Science and technology shape not only our lifestyle, but also politics and war. Scientific inventions and technological innovations have been crucial for the development of new weapons and defence systems, yet have had also other roles to play in warfare and political violence in general.

How do scientific discoveries and technological innovations respond to the societal and political needs? How do military technologies affect the way wars are fought, regulated, and perceived? How do emerging technologies enable new actors to play a role in security politics? Why are some innovations feared?

By focusing on these issues theoretically as well as on concrete empirical examples, the module provides an introduction to the study of security and technology.

WHAT TO EXPECT IN THIS MODULE?

- Interdisciplinary approach to understand the interplay of science and technology on the one hand and the issues of warfare, security, and politics on the other hand
- Broad scope of case studies
- Strong focus on independent and critical thinking
- Mix of mini-lectures, discussions, group work
- Inspiration for your further research based on cutting-edge social scientific work and contemporary case studies

GOALS OF THE MODULE

This module will critically interrogate the entanglements of science and technology with war and security. The students will first learn about STS concepts to understand the co-production of science, technology, security, and war and about social scientific tools to analyse the techno-security politics. The course will then focus on cases where these entanglements will be discussed on concrete examples, including the development nuclear weapons, the evolution of biological weapons and biological disarmament, the politics of dual-use research, artificial intelligence and "smart wars", disinformation and democracy in cyberspace, big data and surveillance etc.

MODULE ORGANIZATION

STRUCTURE

- Introduction to social scientific tools to explore the co-production of science, technology, security, and war
- Application of these tools to understand the politics of nuclear weapons, biosecurity, dual-use research, "smart wars", disinformation and fake news, big data, surveillance etc.

ASSESSMENT

- Group presentation (30%)
- 2,000 word essay (70%)

MODULE CONVENOR

Dr Dagmar Rychnovská

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I am a lecturer in Global Insecurities at the Department of International Relations. My research explores the entanglements of science, technology, and security, especially in the area of global health governance and biosecurity. I draw on critical security studies and science and technology studies.