Record Nr. UNINA9910300634403321 Autore Miller Seumas Titolo Dual use science and technology, ethics and weapons of mass destruction / / Seumas Miller Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, [2018] ©2018 **ISBN** 9783319926063 3319926063 \$q (electronic bk.) Descrizione fisica 1 online resource (122 pages) Collana SpringerBriefs in Ethics, , 2211-8101 Disciplina 174.95 Soggetti Discoveries in science - Moral and ethical aspects Technological innovations - Moral and ethical aspects Weapons of mass destruction **Engineering ethics** Philosophy Social sciences - Philosophy Electronic books Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Acknowledgments -- 1. Introduction, - 2. Concept of Dual Use -- 3. Nota di contenuto Collective Knowledge and Collective Ignorance -- 4. Collective Responsibility -- 5. Chemical Industry -- 6. Nuclear Industry -- 7. Cyber-technology -- 8. Biological Sciences -- 9. Conclusion -- Index. This book deals with the problem of dual-use science research and Sommario/riassunto technology. It first explains the concept of dual use and then offers analyses of collective knowledge and collective ignorance. It goes on to present a theory of collective responsibility, followed by four chapters focusing on a particular scientific field or industry of dual use concern: the chemical industry, the nuclear industry, cyber-technology and the

biological sciences. The problem of dual-use science research and technology arises because such research and technology has the potential to be used for great evil as well as for great good. On the one hand, knowledge is a necessary condition, and perhaps a constitutive

feature, of technologies that contribute greatly to individual and collective well-being. Consider, for example, nuclear technology that enables the generation of low cost electricity in populations without obvious alternative energy sources. So technological knowledge is a good thing and ignorance of it a bad thing. On the other hand, these same technologies can be extremely harmful to individuals and collectives, as with the atomic bombs dropped on Hiroshima and Nagasaki. So, at least with respect to some technologies evidently knowledge is a bad thing and ignorance a good thing. Accordingly, the question arises as to whether we ought to limit scientific research and/or the development of technology and, if so, which research or technology, in what manner and to what extent. This book examines the answer to that question.