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Geopolitics and technological change: the future today

PROF. ALESSANDRO QUARENGHI

Overview

Area: International Relations

Dates: 24 January - 4 February 2022

Course Number: IR / PO 326

Term: Winter School 2022

Credits: 6 ECTS

Description

The course aims to provide students with tools to understand and manage risks and opportunities resulting from technological change in the global context. To do so, it provides an understanding of the global contemporary context and its contemporary process of change; it explains the concept of the geopolitical code, providing examples of application; it illustrates the nature of political risks before focusing on innovation, competitiveness, and technology management.

Upon successful completion of the course, students will

- be familiar, both from a theoretical and empirical perspective, with the features of the main models of the international system, its current structure and its contemporary process of change, and the main challenges characterizing it;
- be able to analyse political risks to a different range of organizations (States, companies, NGOs);
- be able to identify and outline processes to manage innovation and technological change in a simulated professional environment by connecting global, regional, and local variables that influence or define the issue.

Course contents

The course is divided into two main parts. In its first part the course focuses on politics: it begins with an overview of the features of the international system while outlining perspectives on how to understand international politics, before focusing on geopolitics and tools, such as the geopolitical code, that allow any organization to map its geopolitical standing and political risks to be aware of. In the second part, the course focuses on technology management: after illustrating the relationship between the international system and technological change, it focuses on the relationship between innovation and competitiveness. Finally, it deals with contemporary global technological changes (for example: AI, industry 4.0, 3D printing, etc.) and the transformation they are likely to create, and the process of technology management.

Prerequisites

The course is open to students of all backgrounds. A good working knowledge of English is essential.

Method of teaching

The course will combine lectures, analysis of case studies, and debates. Students will have to research some case studies during the course, according to the instructor's guidelines provided at the beginning of the course. Finally, students, working in small groups, will have to research and orally present (15-20 minutes) issues and/or case studies provided by the instructor and according to his instructions.



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Course requirements

- a. Students are expected to actively take part in debate;
- b. Before each class, students are expected to have read the compulsory readings (and are strongly advised to read the recommended readings);
- c. Students are expected to research some case studies according to the instructor's guidelines;
- d. Students are required to research and orally present one of the topics provided by the instructor;
- e. Students will have to take a final written exam.

Credits

6 ECTS

Grading

Class participation	20%
Case studies	25%
Presentation	25%
Final written exam	30%

Course readings and materials

All course readings and materials will be available on the course Blackboard page, in the Materials section, or can be accessed through the links provided.

Rules of conduct

Attendance: Attendance is mandatory and no absence/s will be excused. Unexcused absences will prevent students from being admitted to the final exam. In case of health issues, students will need to inform both UCSC International Office (at international.advisor@unicatt.it) and the professor and provide a medical certificate.

Should students, for Covid-related issues, be prevented from traveling to Milan and taking in-person courses, but still would like to join the program, Università Cattolica will decide on a case by case basis whether or not the student will be authorized to join virtually.

Attendance will still be mandatory for all classes (exceptions to this rule will only be made for students who find themselves in a time zone that complicates live participation and if the course allows for asynchronous access to course content). Students attending live streaming must activate microphone and camera unless otherwise specified by the instructors.

Company visits (when in-person) will be substituted with an alternative academic activity

Exam Date: The exam date cannot be re-scheduled. Unexcused absences will result in a failing grade. In cases of unforeseeable circumstances such as illness or injury on the day of the exams, the student must submit a medical certificate and communicate his/her absence to the Professor and UCSC International Office via email prior to the exam. If the student does not justify his/her absence through sufficient documentation and with adequate notice before the final test, the student will receive an automatic Failed.

Instructor bio

Alessandro Quarenghi is a Lecturer in International Politics at the Università Cattolica del Sacro Cuore, where he teaches International Relations, Economic Geography, and International Relations of the Middle East. He holds a degree in Law, a PhD in International Relations, a Specialization in International Economics



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and Politics, and Master's Degrees in Postcolonial Politics and Cross-cultural Mediation. His work focuses on US foreign policy, international order and international relations and politics of the Middle East.

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Course Schedule

FIRST WEEK. GEOPOLITICS, THE INTERNATIONAL SYSTEM, AND RISKS

Lesson 1 – January 24

Introduction:

- Presentation of the course: aims, organization, class-by-class overview. Assignments: suggestion on how to successfully complete the course
- What is Power? Main concepts (Dahl's, Bachrach and Baratz's, Luke's, and Foucault's concepts)
- Introduction to Geopolitics and International politics: essential elements
- The historical structural evolution of the international system and its modelling: multipolarity, bipolarity, hegemony
- International Relations Theory: Brief review of 'schools' of and 'approaches' to International Politics

Reading/Course Material

- J. Grieco, J. G. Ikenberry, M. Mastanduno, *Introduction to International Relations. Enduring Questions and Contemporary Perspectives* (Palgrave, 2015), pp. 70-103
- Bremmer I., Keat P., *The Fat Tail: The Power of Political Knowledge in an Uncertain World* (OUP, 2009), pp. 47-51. Available at <https://tinyurl.com/y5k9lcje> (NOT ON BLACKBOARD)
- S. Lukes, *Power: A Radical View* (Macmillan 1974).
- P. Digeiser, "The Fourth Face of Power", *The Journal of Politics*, 54 (4), Nov. 1992, pp. 977-1007.

Lesson 2 – January 25

The international system:

- Order, International Order, World Order.
- Types of International Order.
- The contemporary global international system and its interpretation: unipolarity, end of history, clash of civilizations, empire, globalization, the liberal order
- Contemporary change and ideas about the future international system

Reading/Course Material

- J. Grieco, J. G. Ikenberry, M. Mastanduno, *Introduction to International Relations. Enduring Questions and Contemporary Perspectives* (Palgrave, 2015), pp. 70-103
- Bremmer I., Keat P., *The Fat Tail: The Power of Political Knowledge in an Uncertain World* (OUP, 2009), pp. 47-51. Available at <https://tinyurl.com/y5k9lcje> (NOT ON BLACKBOARD)
- S. Lukes, *Power: A Radical View* (Macmillan 1974).
- P. Digeiser, "The Fourth Face of Power", *The Journal of Politics*, 54 (4), Nov. 1992, pp. 977-1007.



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Lesson 3 – January 26

Contemporary global challenges

- Introduction to contemporary global challenges: the global environment, statehood, globalization and anti-globalization politics, a-symmetric warfare, migration, populism, US revisionism, shift to power (hegemonic transition), pandemics, technological change.

Reading/Course Material:

- C. Mudde, “The Populist Zeitgeist”, *Government and Opposition*, 39 (4), Autumn 2004, pp. 541-563
- Y. Mounk, R. S. Foa, “The End of the Democratic Century. Autocracy’s Global Ascendance”, *Foreign Affairs* (16 April 2018). Available at <https://www.foreignaffairs.com/articles/2018-04-16/end-democratic-century> (last accessed 20/06/2018)
- J. Busby, “Warming World. Why Climate Change Matters More Than Anything Else”, *Foreign Affairs* (14 June 2018). Available at <https://www.foreignaffairs.com/articles/2018-06-14/warming-world> (last accessed 20/06/2018)
- Buruma, A. Margalit, *Occidentalism. The West in the Eyes of its Enemies* (Penguin, 2004), pp. 1-12 and 75-99.
- S. Walt, “The End of Hubris And the New Age of American Restraint”, *Foreign Affairs*, 98 (3), May/June 2019, pp. 26-35. Available at <https://www.foreignaffairs.com/articles/2019-04-16/end-hubris>

Lesson 4 – January 27

Political risks

- Introduction to political risks
- Political risk analysis
- Types of risks (political, economic, social): domestic instability, terrorism, the environment, expropriation, regulatory risks

Reading/Course Material:

- Bremmer I., Keat P., *The Fat Tail: The Power of Political Knowledge in an Uncertain World* (OUP, 2009), pp. 15-161. Available at <https://tinyurl.com/y5k9lcje> (NOT ON BLACKBOARD)
- World Economic Forum, *Global Risk Report 2020*. Available at http://www3.weforum.org/docs/WEF_Global_Risk_Report_2020.pdf
- World Economic Forum, *Global Risk Report 2021*. Available at http://www3.weforum.org/docs/WEF_The_Global_Risks_Report_2021.pdf

Lesson 5 – January 28

Political risks

- Theoretical concept
- Questions and principles of geopolitical codex
- The geopolitical codex of States, companies, and NGOs

Reading/Course Material:

- Flint C., *Introduction to geopolitics* (Routledge, 3rd ed. 2017), Chapters 1, 2, 3.
- The White House, *National Security Strategy of the United States of America*, 2017. <https://www.whitehouse.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf>
- E. W. Said, *Orientalism: Western Conceptions of the Orient* (Penguin 1978), pp. 1-28.



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SECOND WEEK. THE INTERNATIONAL SYSTEM, GEOPOLITICS, AND TECHNOLOGY

Lesson 6 – January 31

The international system and innovation

- Technological change and the international system
- Innovation: main concepts and perspectives
- Type of innovation
- Innovation and competitiveness

Reading/Course Material:

- Milner, H. V., Solstad S. U., “Technological Change and the International System”, working paper 2020. Available at https://scholar.princeton.edu/sites/default/files/technology_diffusion_and_the_international_system.pdf
- O’Sullivan D., Dooley L., *Applying Innovation* (SAGE 2009), Chapters 1, 2, 3 (pp. 1-71). Available at <https://tinyurl.com/yxbeejiq> (NOT ON BLACKBOARD)
- Cantwell J., “Innovation and Competitiveness”, in Fagerberg J., Mowery D.C., and Nelson R.R. (eds.), *The Oxford Handbook of Innovation* (Oxford University Press 2006). As a working paper (2003), available at http://globalbusiness.rutgers.edu/Working_papers/jc_ohib.pdf and <https://core.ac.uk/reader/205876810>
- McKinsey Global Institute, *The China Effect on Global Innovation*, Research Bulletin June 2015. Available at <http://mckinseychina.com/wp-content/uploads/2015/07/mckinsey-china-effect-on-global-innovation-2015.pdf>
- Sawhney M., Wolcott R.C., Arroniz I., “The 12 Different Ways for Companies to Innovate”, *MIT Sloan Management Review* 47 (3), 2006, pp. 75-81.
- Steinfeld E. S., Beltoft T., “Innovation Lessons from China”, *MIT Sloan Management Review* 55 (4), 2014, pp. 49-55.
- Prud’Homme D., von Zedtwitz M., “The Changing Face of Innovation in China”, *MIT Sloan Management Review* 59 (4), 2018, pp. 24-32.
- European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, *European Innovation Scoreboard 2020*. Available at <https://ec.europa.eu/docsroom/documents/41861/attachments/1/translations/en/renditions/pdf>

Lesson 7 – February 1

Country competitiveness

- Issues influencing country competitiveness
- The IMD World Competitiveness Yearbook
- The World Economic Forum’s Global Competitiveness Report
- Case studies: Italy, Mexico, the UK, the US.

Presentations

Reading/Course Material:

- The World Economic Forum (WEF), *The Global Competitiveness Report 2019*. Available at http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf
- The World Economic Forum (WEF), *The Global Competitiveness Report 2020*. Available at http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2020.pdf
- Institute for Management Development (IMD), *World Digital Competitiveness Ranking 2019*. Available at <https://www.imd.org/globalassets/wcc/docs/release-2019/digital/imd-world-digital-competitiveness-rankings-2019.pdf>



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- The World Economic Forum, *The Europe 2020 Competitiveness Report*. Available at <http://reports.weforum.org/the-europe-2020-competitiveness-report/> (NOT ON BLACKBOARD)
- Nallari R., Griffith B., *Clusters of Competitiveness*, The World Bank, 2013. Available at <http://documents1.worldbank.org/curated/en/152521468158381169/pdf/Clusters-of-competitiveness.pdf>

Lesson 8 – February 2

Contemporary technological change and innovation

- The Fourth Industrial Revolution: Global technological change and its global impact.
- Cases: Artificial Intelligence, Industry 4.0, 3D printing, smart cities, digitalization, etc.

Reading/Course Material:

- Schwab K., “The Fourth Industrial Revolution. What It Means and How to Respond”, *Foreign Affairs*, 12 December 2015. Available at <https://www.foreignaffairs.com/articles/2015-12-12/fourth-industrial-revolution>
- Drum K., “Tech World. Welcome to the Digital Revolution”, *Foreign Affairs*, July/August 2018. Available at <https://www.foreignaffairs.com/articles/world/2018-06-14/tech-world>
- Cohen J., Fontaine R., “Uniting the Techno-Democracies. How to Build Digital Cooperation”, *Foreign Affairs*, November/December 2020. Available at <https://www.foreignaffairs.com/articles/united-states/2020-10-13/uniting-techno-democracies>
- World Economic Forum, *Top 10 Emerging Technologies of 2020*, November 2020. Available at http://www3.weforum.org/docs/WEF_Top_10_Emerging_Technologies_2020.pdf
- World Economic Forum, *HR4.0: Shaping People Strategies in the Fourth Industrial Revolution*, December 2019. Available at http://www3.weforum.org/docs/WEF_NES_Whitepaper_HR4.0.pdf
- World Economic Forum, *Digital Media and Society. Implications in a Hyperconnected Era*, January 2016. Available at <https://www.weforum.org/reports/digital-media-and-society-implications-in-a-hyperconnected-era>
- World Economic Forum, *Global Technology Governance Report 2021: Harnessing Fourth Industrial Revolution Technologies in a COVID-19 World*, December 2020. Available at http://www3.weforum.org/docs/WEF_Global_Technology_Governance_2020.pdf
- Quarenghi A., “The Reshaping of the International Order, Digitalisation, and the Emergence of New Governance Regimes”, 2019, being published.
- Kalantzis-Cope P., “Geopolitical Structuring in the Age of Information: Imagining Order, Understanding Change”, *Alternatives: Global, Local, Political*, 41(4) 2016, pp. 179-193

Lesson 8 – February 3

Technology foresight

- Overview: technology foresighting, strategy, roadmap, evaluation.
- Competitive and technology intelligence.
- Examples of application.

Presentations

Reading/Course Material:

- Miles I., Saritas O., Sokolov A., *Foresight for Science, Technology, and Innovation* (Springer, 2016)

Final exam – February 4