The 'Cyber Gameboard' – a tool for analyzing cyberpower moves and counter-moves

	Connection Physical data handling domain	**Computation** Virtual interactivity domain	**Cognition** Knowledge and meaning domain	
Cooperation Integrative social power (Infopolitik)	(7) Open source hardware (e.g. mesh networks)	(8) Open source code, social software (e.g. Linux, GitHub)	(9) Shared knowledge and narrative (e.g. Wikipedia)	*Power as positive social reciprocity*
Co-option Economic exchange power	(4) Dominate hardware market (e.g. Cisco, Huawei)	(5) Dominate software market (e.g. Microsoft, Apple)	(6) Knowledge services, marketing, PR, advertising, spin	*Power as balanced social reciprocity*
Coercion Destructive hard power (Realpolitik)	(1) Kinetic attack on information infrastructure	(2) Malware attack, IP theft (e.g. Stuxnet, China?)	(3) Threats, disinformation, psyops	*Power as negative social reciprocity*
	Information hardware	*Information software*	*Information wetware*	

The Cyber Gameboard: developed during the UK Defence Academy Cyber Inquiry in 2012 as a way of mapping the users and uses of cyberpower

The Defence Academy Cyber Inquiry, conducted during 2012-13, aimed to provide a strategic overview and assessment of the changing nature of security in a world increasingly enabled by and dependent on networked digital devices.

The Cyber Gameboard was the principal innovation of the Inquiry and provides a systematic way of mapping the use of cyberpower by multiple competing global players operating in cyberspace.

The use of cyberpower was seen as a 'global game' that could be mapped on a novel 'Cyber Gameboard' consisting of a nine-cell grid. The horizontal axis of the grid is divided into three columns representing key aspects of information: connectivity, computation and cognition. The vertical axis of the grid is divided into three rows representing the primary ways of using power: cooperation, co-option, and coercion. The nine cells of the grid represent nine forms of cyberpower, resulting from nine different combinations of power and information.

The Cyber Gameboard is an abstract representation of the surface of cyberspace. As defined in the Inquiry report, cyberspace is treated as a networked medium capable of conveying cyberpower to produce effects in another global location in 'flow space' – the domain of action in physical space caused by information flowing from cyberspace.

Cyberpower can be built up in any cell of the gameboard and projected through cyberspace to alter flow space via the same or other cells of the gameboard. This 'cyber game' of move and counter-move is now being played in earnest by all those using network connected computers. Those players include states, businesses, NGOs, individuals, non-state political groups, and organized crime – essentially all users of cyberspace are players whether they like it or not.

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The Inquiry report, *The Global Cyber Game*, was published in 2013 by the UK Defence Academy, and can be downloaded at https:// www.da.mod.uk/publications/The-Global-Cyber-Game-Reduced-File-Size

For more information about the use of the Cyber Gameboard, contact the report author Hardin Tibbs at htibbs@synthstrat.com