## Analytical Frames for Studying Technology and Politics
*(Isms You Can Use)*

**Dr. Philip N. Howard**

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Realism</th>
<th>Liberalism</th>
<th>Marxism</th>
<th>Science and Technology Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actor</td>
<td>Unitary state: mutually exclusive, territorially distinct; benevolent hegemon accepts costs with eye to long-term power; malevolent hegemon thinks short term</td>
<td>State representative and other non-state actors, including corporations, domestic political parties</td>
<td>Classes: social elites, civil society, consumers</td>
<td>Nodes, defined by links in a network; social and material actors; whistle blowers, coders, bots and other software agents; digerati, netizens</td>
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<tr>
<td>System</td>
<td>Anarchy; balance of power</td>
<td>Interdependence; trans-nationalism; transactions</td>
<td>Hierarchical; powerful groups structure capitalist world economy</td>
<td>Socio-technical systems and networks, made up of sub-networks</td>
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<tr>
<td>Action</td>
<td>Interruptions in balance of power; cycles of concern and disinterest</td>
<td>Market fluctuations, different technology &amp; information</td>
<td>Class conflict, historical materialism</td>
<td>Information asymmetry, conflicting code, technological competition; capacity and constraint</td>
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<tr>
<td>Interests</td>
<td>Power; security</td>
<td>Welfare; liberty</td>
<td>Capital accumulation</td>
<td>Science or network driven, temporary and project based</td>
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<tr>
<td>Peace &amp; Cooperation</td>
<td>Balance of power</td>
<td>Actors with complimentary capabilities; market</td>
<td>Always in interests of rich &amp; Northern, and at the expense of poor &amp; Southern; until the revolution!</td>
<td>Power distributed equally across links and nodes, consensus behind technical standards, protocols IP and code</td>
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<tr>
<td>Authors</td>
<td>Bull, Gilpen, Morgenthau, Kennedy</td>
<td>Keohane, Nye, Putnam</td>
<td>Both Andersons, Marx, Lenin</td>
<td>Castells, Latour</td>
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<tr>
<td>Methods</td>
<td>Comparative, large-N</td>
<td>Single case, comparative, large-N</td>
<td>Comparative, natural experiment</td>
<td>Network metaphor or formal analysis</td>
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<tr>
<td>Strengths</td>
<td>One strong dominant power can really get things done</td>
<td>Explains multi-polarity &amp; declining role of American state; parsimonious</td>
<td>Good critique of motivations; global &amp; systemic trends</td>
<td>Interpretive, inductive; politics of code and infrastructure</td>
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<tr>
<td>Weaknesses</td>
<td>Not explain lags between changes; persistence of other actors</td>
<td>Not everybody maximizes utility in voluntary and rational ways</td>
<td>Not great on policy recommendations</td>
<td>Too much historical contingency, path dependence, and complex causation</td>
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<tr>
<td>Understanding the Pax Technica?</td>
<td>Diplomacy 2.0, cyber-war, -terror, -espionage, information war</td>
<td>Dot-com and hierarchical firms, permanently beta organization, death of distance, long-tail economics, corporate cyber-espionage, bureaucratic rationalization</td>
<td>Data as ultimate extracted value, hyper-capitalism, information barons, fetishization of consumer electronics, alienation experienced through privacy and data loss</td>
<td>Implied</td>
</tr>
</tbody>
</table>

* With apologies to cognitivism, constructivism, and feminism, and the critical, phenomenological and epistemic perspectives.

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