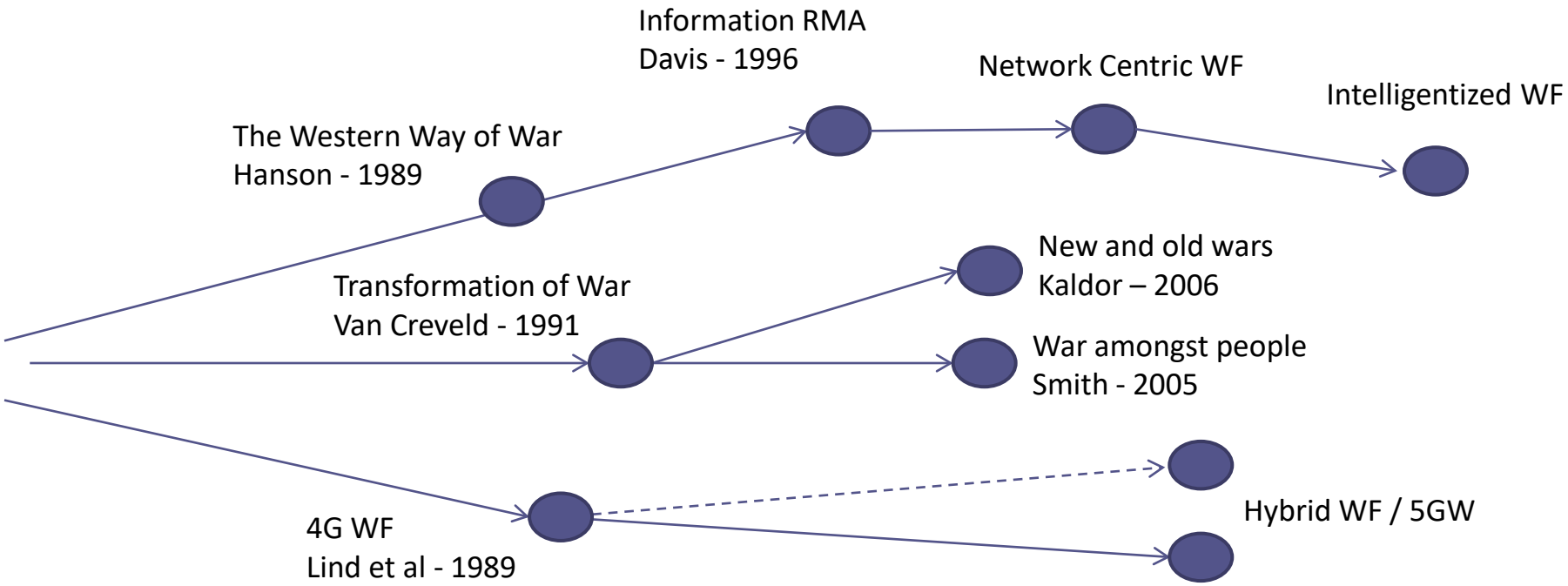
Artificial Intelligence and Operations Planning

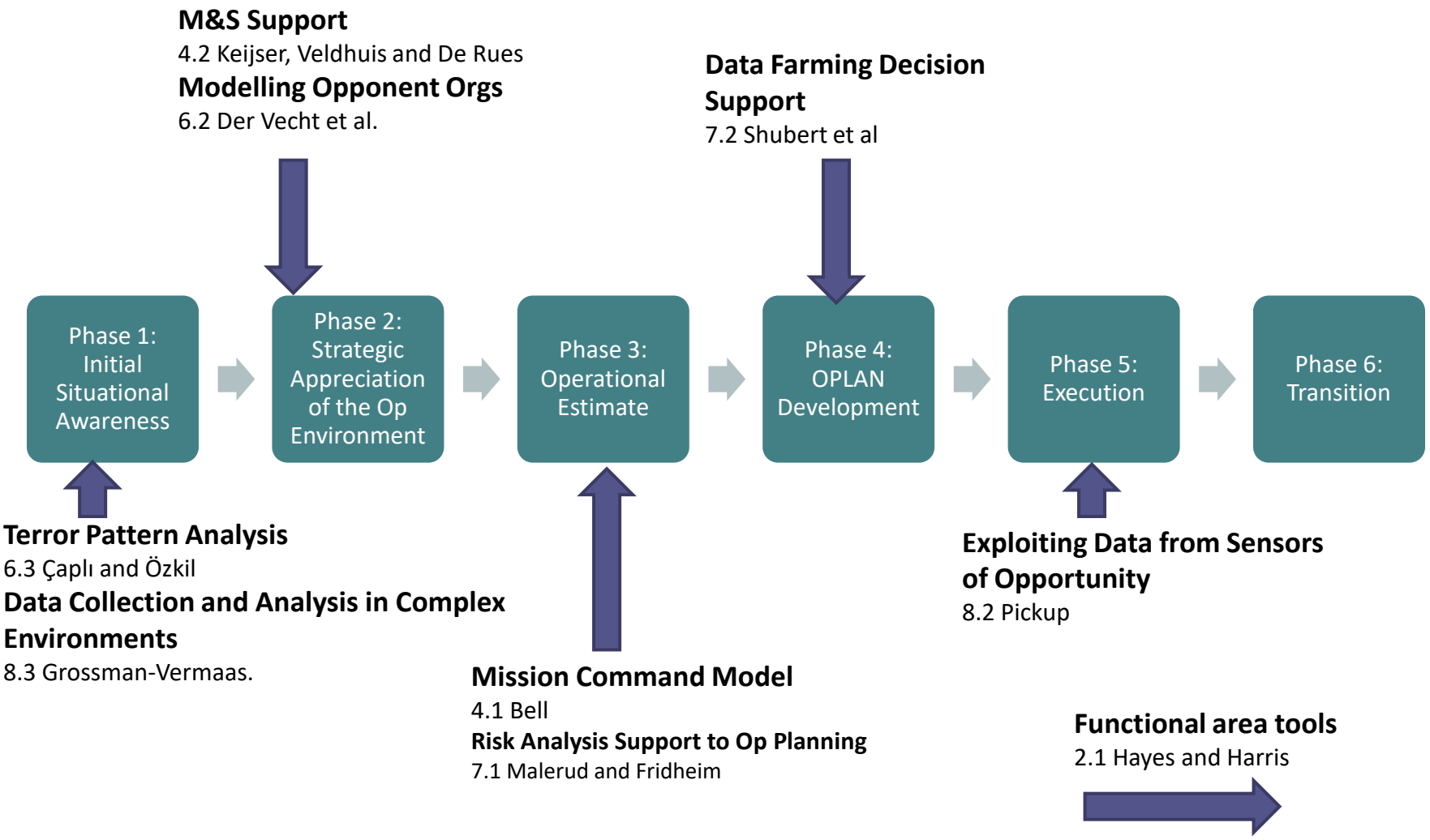
Maj Kitty McKendrick

Military thought and AI

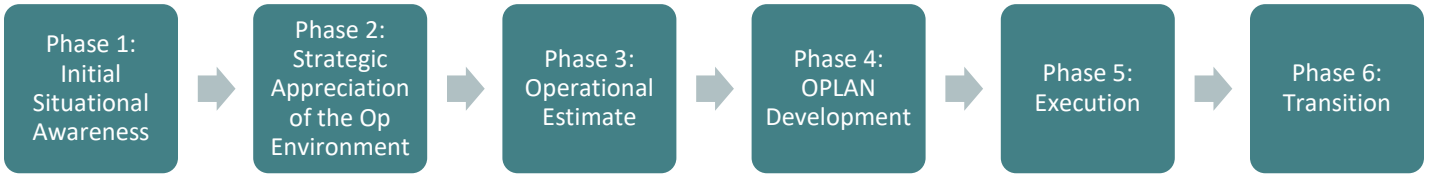


AI Spring 1980-1987 → AI Winter 1987-1993 → Sustained AI Spring 1993-2011 → AI Revolution 2011-

Application of AI to Operations Planning



Application of AI to Operations Planning



Sub-Phases	6	5	23	11	3	3
Actions	15	41	100	63	13	6
Feasibly Autonomous	10	13	42	33	5	3

Problems and Potential

- Meeting complexity with complexity
- Evidence based decision-making
- Computing power
- Vulnerability to interference
- Cultural reticence and lack of strategic imperative

Risks and Implications

- The human bottleneck
- Shaping the operational environment
- Strategic overmatch by more capable adversary
- The dubious value set of Military AI
- Implications of AI for human values

Recommendations

- Redesign the Operations Planning Process
- Educate planning staff on adapting software tools
- Maintain the capability to operate in low tech environment / develop offensive cyber capabilities
- Foster co-operation with Industry through commitment to safe AI