



Benefits realisation?

Some uncomfortable lessons from England's efforts to produce a nationally stored summary record for 50 million people

Professor Trisha Greenhalgh

With input from Katja Stramer, Tanja Bratan, Susan Hinder, Emma Byrne, Jill Russell, Henry Potts



Barts and The London
School of Medicine and Dentistry

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“A computerized medical record for every American within the next five years.....

...could prevent medical error, save lives and create hundreds of thousands of jobs”

Logged in as:

Clinician (with override) [139]
Main Base Room 1

LOG OFF

Clinician Options

 Outstanding cases
(114)

Database Search

General

Change Password

Heading

Case # 10635 No locked cases
Patient: Lallie Maitland-Edwards 26-Aug-44 (64 years)
Phone: Return No: 01233 722700Current Location
51 Central Drive
Stoke-On-Trent ST3 2AP☐ Only show status for cases at this location

Waiting for clinician 114

On-line clinician [Lallie Maitland-Edwards]

Patient Details Medical History Event List **Summary Care Record** Current Consultation

Discontinued Repeat Medication

The practice system holds no record of Repeat Medication that has been recently discontinued

Acute Medication

Date prescribed	Medication Item	Dosage instructions	Quantity or duration	Reason for medication	Supporting information
01/12/2008	DIAMORPHINE HCl inj 10mg	START WITH 20MG/24 HOURS IN SYRINGE DRIVER, INCREASE AS PER PROTOCOL	10 10mg ampoule(s)		
01/12/2008	MIDAZOLAM inj 10mg/5ml	START WITH 20MG/24 HOURS IN SYRINGE DRIVER, INCREASE AS PER PROTOCOL	10 ampoule(s)		
01/12/2008	METOCLOPRAMIDE inj 10mg/2ml	START WITH 30MG/24 HOURS IN SYRINGE DRIVER AND INCREASE AS PER PROTOCOL	20 ampoule(s)		
01/12/2008	PARACETAMOL caps 500mg	TAKE TWO 4 TIMES/DAY	80 capsule(s)		

Administrative Procedures

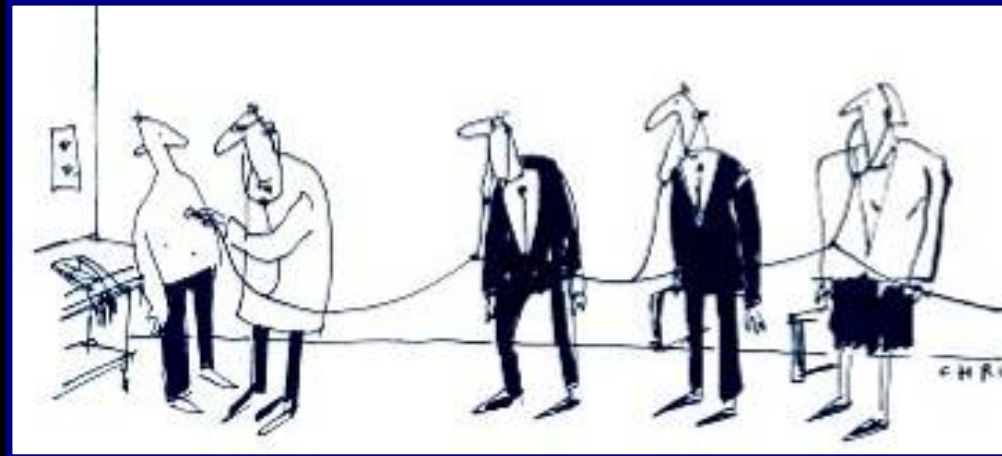
Date	Description	Supporting information
01/12/2008	Has a carer	Notes: James (Husband), family - 2 sons (Philip & Tom) who live locally
01/12/2008	DS 1500 Disability living allowance completed	Notes: completed

Clinical Observation and Findings



FORMER SHIPMAN PATIENT IN CONTROL

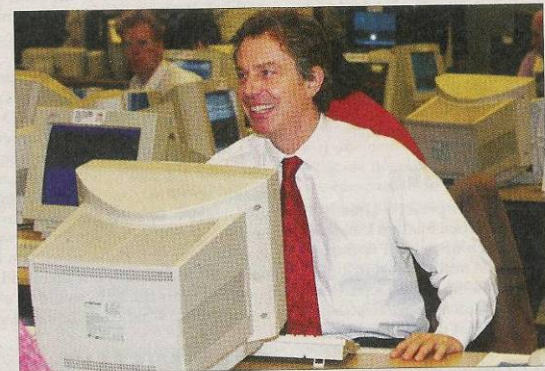
Margaret Rickson 79, retired



SYSTEM FAILURE!

A Private Eye special report by **RICHARD BROOKS**

How this government is blowing £12.4bn on useless IT for the NHS



CLUELESS: Tony Blair, who can barely use a computer himself, naively believed that a grandiose IT project could transform the NHS

"Waste and inefficiency in the NHS is intolerable," declared Health Secretary Patricia Hewitt one year ago amid mounting deficits. "A penny wasted is a penny stolen from a patient." This is the story of the theft of 1,240,000,000,000 pennies from patients through an IT

such was the development of the healthcare IT market that by March 2003 McKinsey's Bennett reported that there were 27 "entirely viable and interesting vendors" with suitable software packages to sell.

Yet in February 2002 when Pattison crossed

SCR EVALUATION: KEY FINDINGS

BMJ

RESEARCH

Adoption and non-adoption of a shared electronic summary record in England: a mixed-method case study

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ABSTRACT

Objective To evaluate a national programme to develop and implement centrally stored electronic summaries of patients' medical records.

Design Mixed-method, multilevel case study.

Setting English National Health Service 2007-10. The summary care record (SCR) was introduced as part of the National Programme for Information Technology. This evaluation of the SCR considered it in the context of national policy and its frontline implementation and use in three districts.

these different institutional worlds, align their conflicting logics, and mobilise implementation effort.

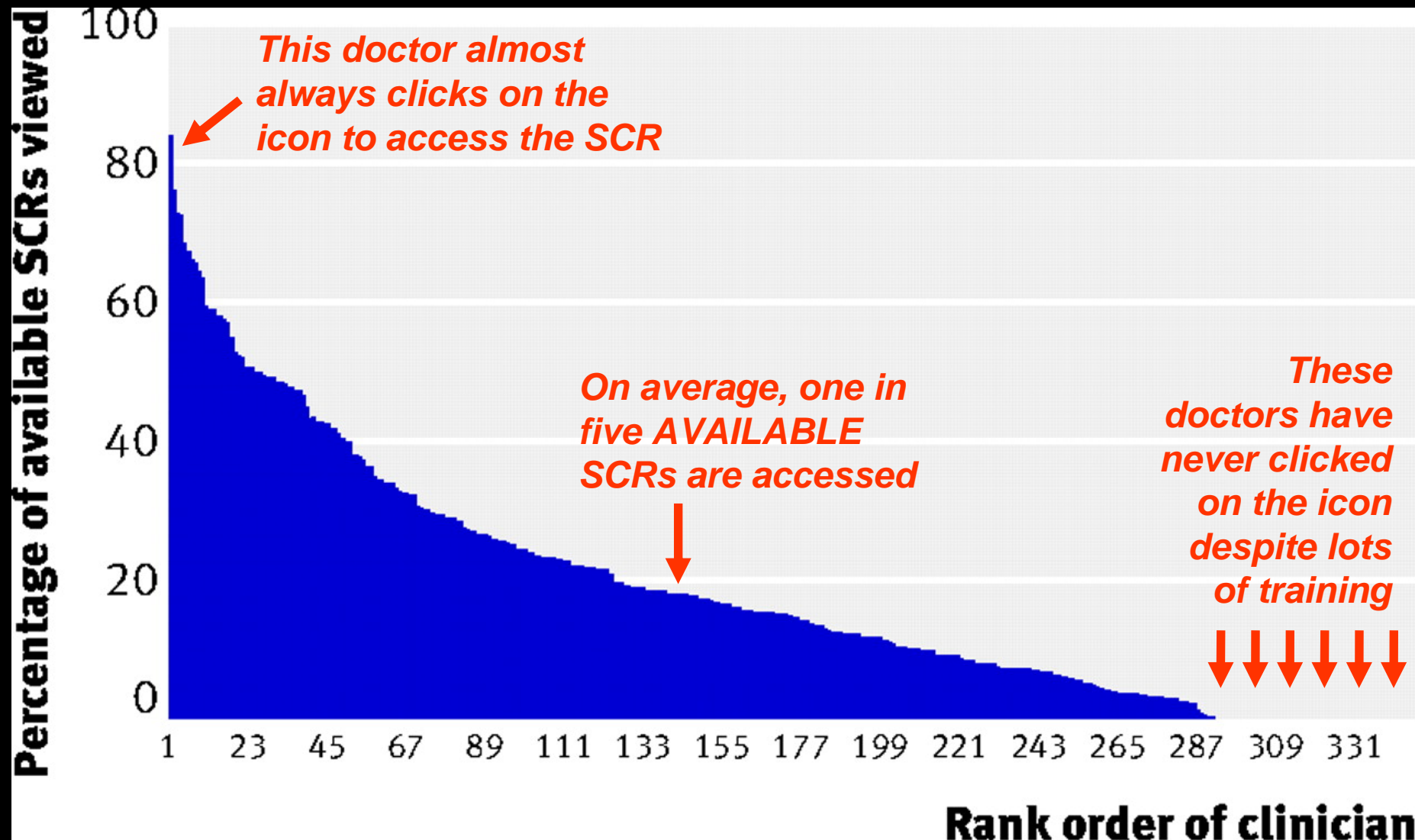
Conclusions Benefits of centrally stored electronic summary records seem more subtle and contingent than many stakeholders anticipated, and clinicians may not access them. Complex interdependencies, inherent tensions, and high implementation workload should be expected when they are introduced on a national scale.

INTRODUCTION

Shared electronic records are being introduced in

SCR EVALUATION: KEY FINDINGS

- Huge, complex programme
 - “More work than we anticipated”
 - 22% of patients in participating sites have a SCR
- Multiple stakeholders
 - Competing priorities and ways of working
 - Undercurrents of confusion and conflict
- Inflexible change model (“Gantt chart culture”)
- Very low front-line use, especially in secondary care
- “Ridiculously overgoverned”



SCR EVALUATION: KEY FINDINGS

- Non-use by front line staff, influenced by
 - Normative influences: beliefs, values, meaning-systems, professional codes of conduct
 - Causal influences e.g. job descriptions, physical space, material properties of the technology
- ‘Wicked problems’ – contested, insoluble, with moral and political dimensions

A key task was to develop theory

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Theorising big IT programmes in healthcare: Strong structuration theory meets actor-network theory

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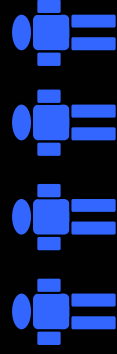
Actor-network theory

ABSTRACT

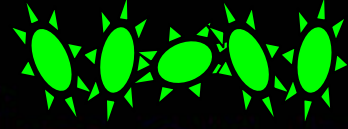
The UK National Health Service is grappling with various large and controversial IT programmes. We sought to develop a sharper theoretical perspective on the question “What happens – at macro-, meso- and micro-level – when government tries to modernise a health service with the help of big IT?” Using examples from data fragments at the micro-level of clinical work, we considered how structuration theory and actor-network theory (ANT) might be combined to inform empirical investigation. Giddens (1984) argued that social structures and human agency are recursively linked and co-evolve. ANT studies the relationships that link people and technologies in dynamic networks. The combination



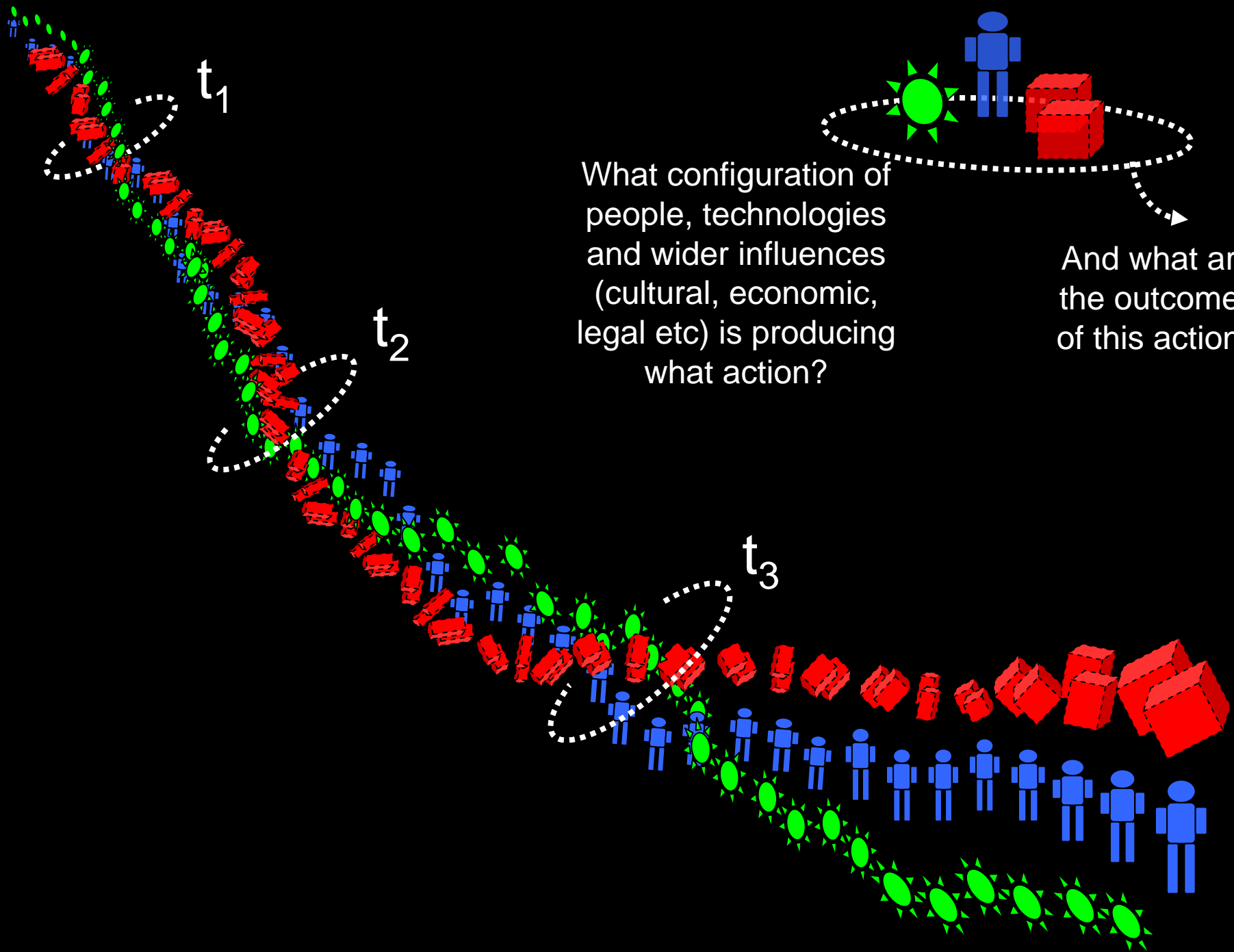
Society

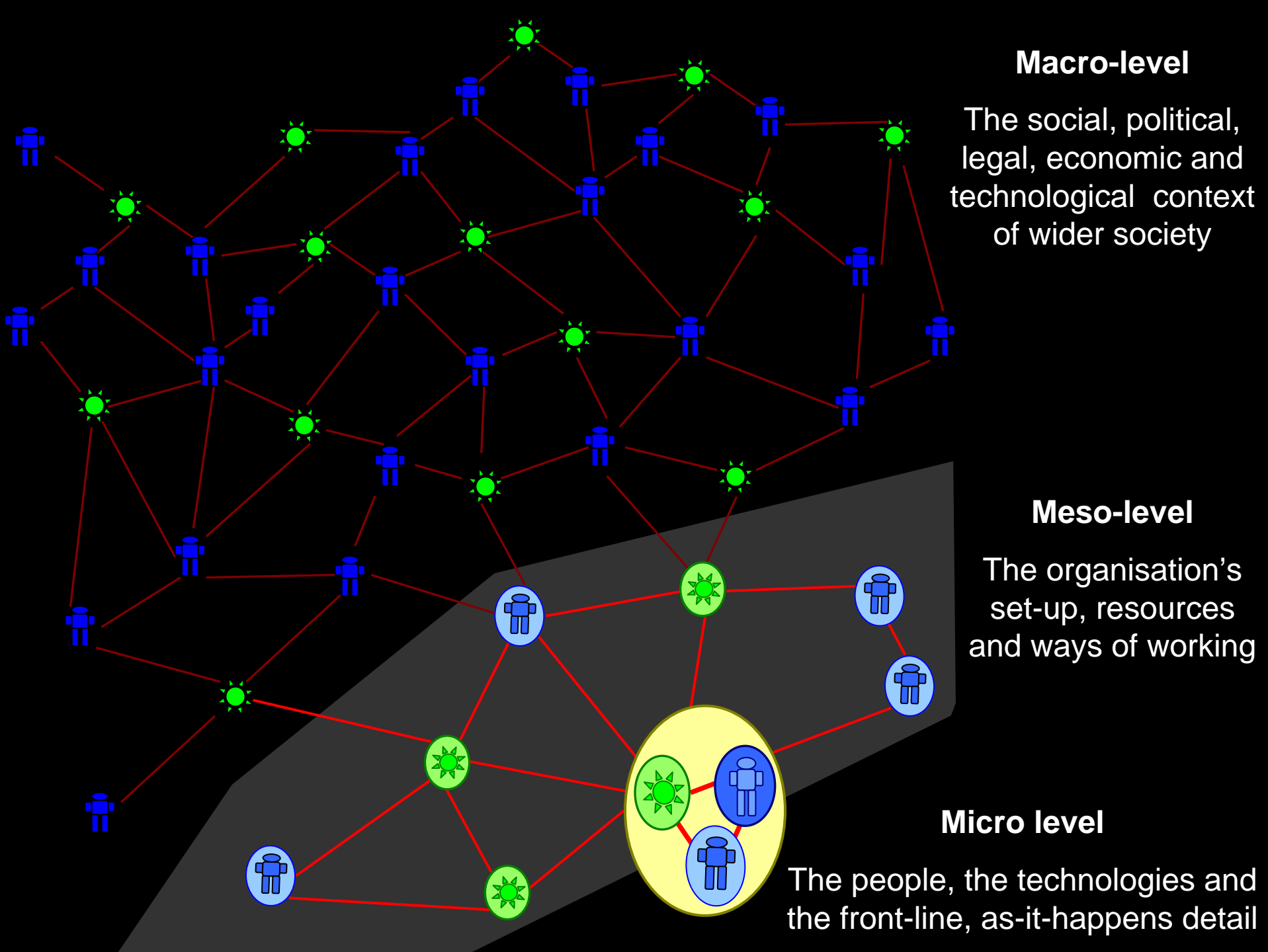


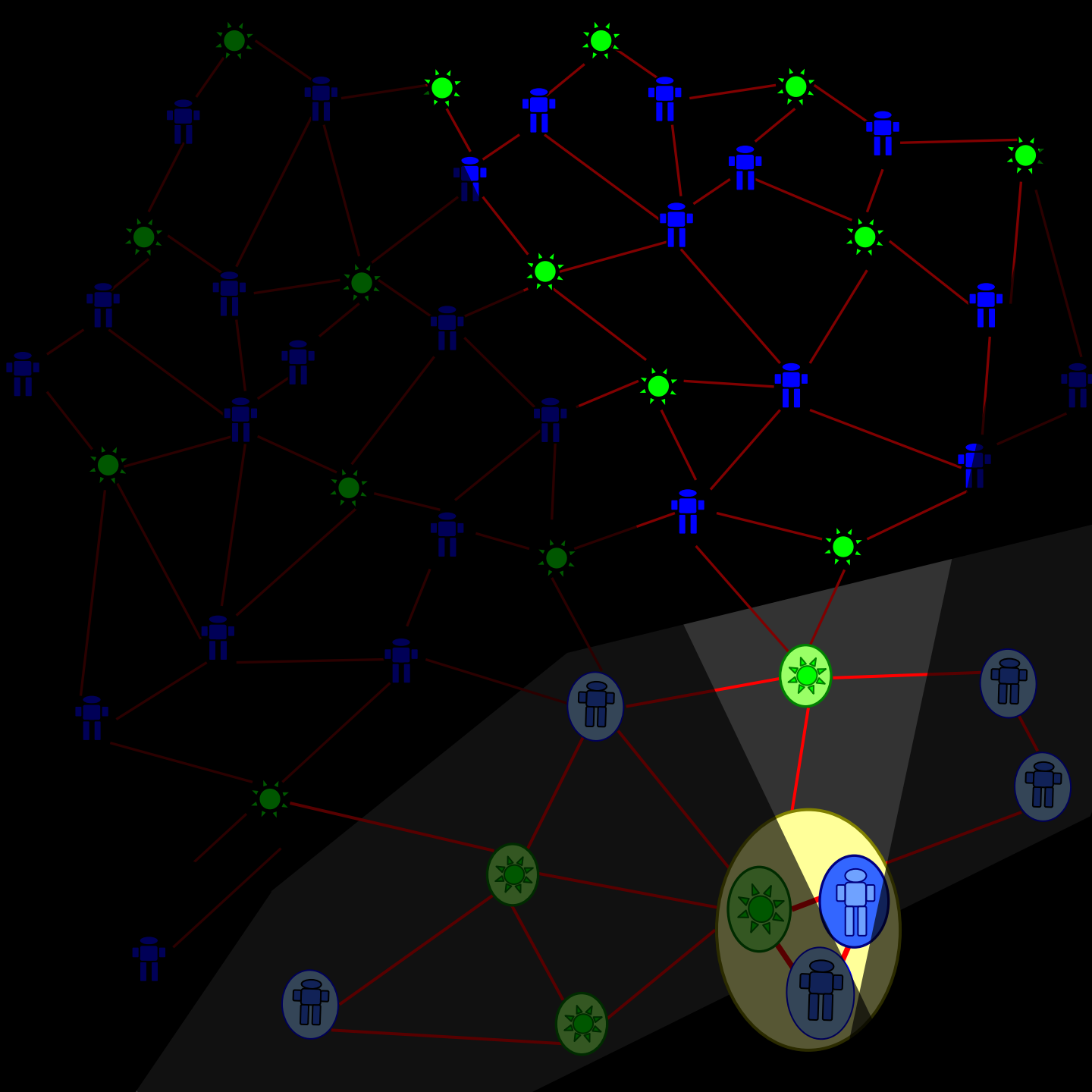
People



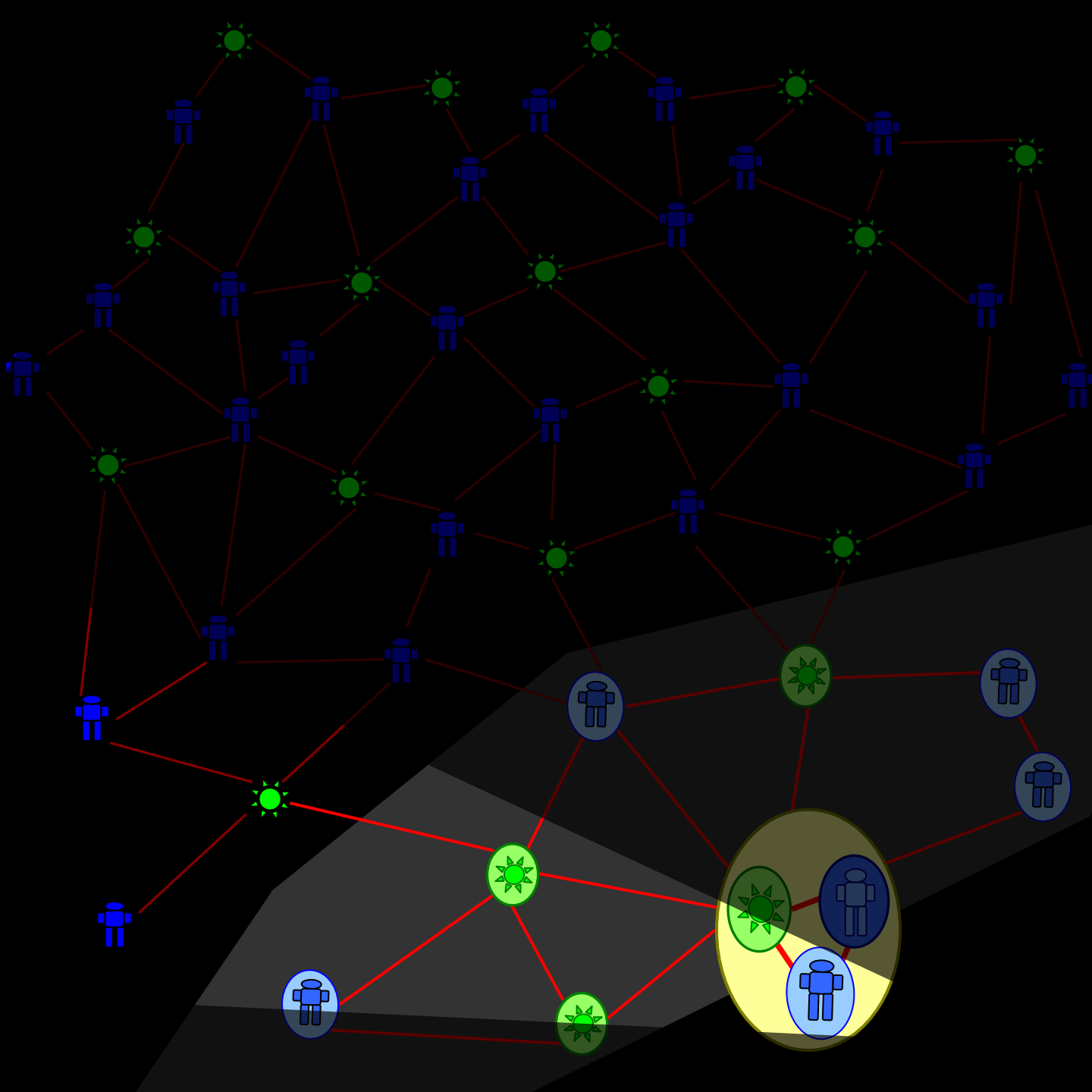
Technology



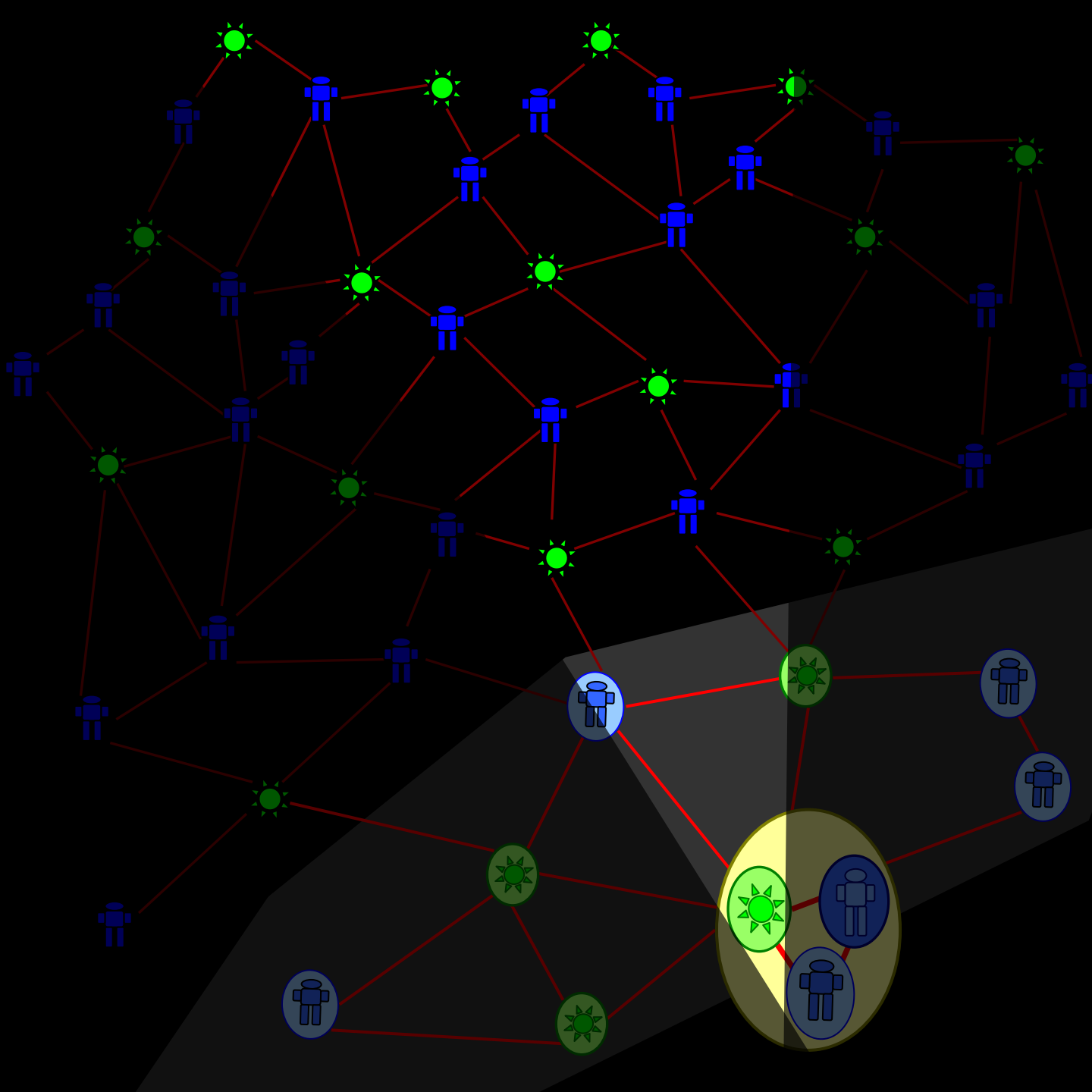




Person A sees the macro terrain in a particular way. S/he is more influenced by some social structures than others, and sees more potential in some technologies than others

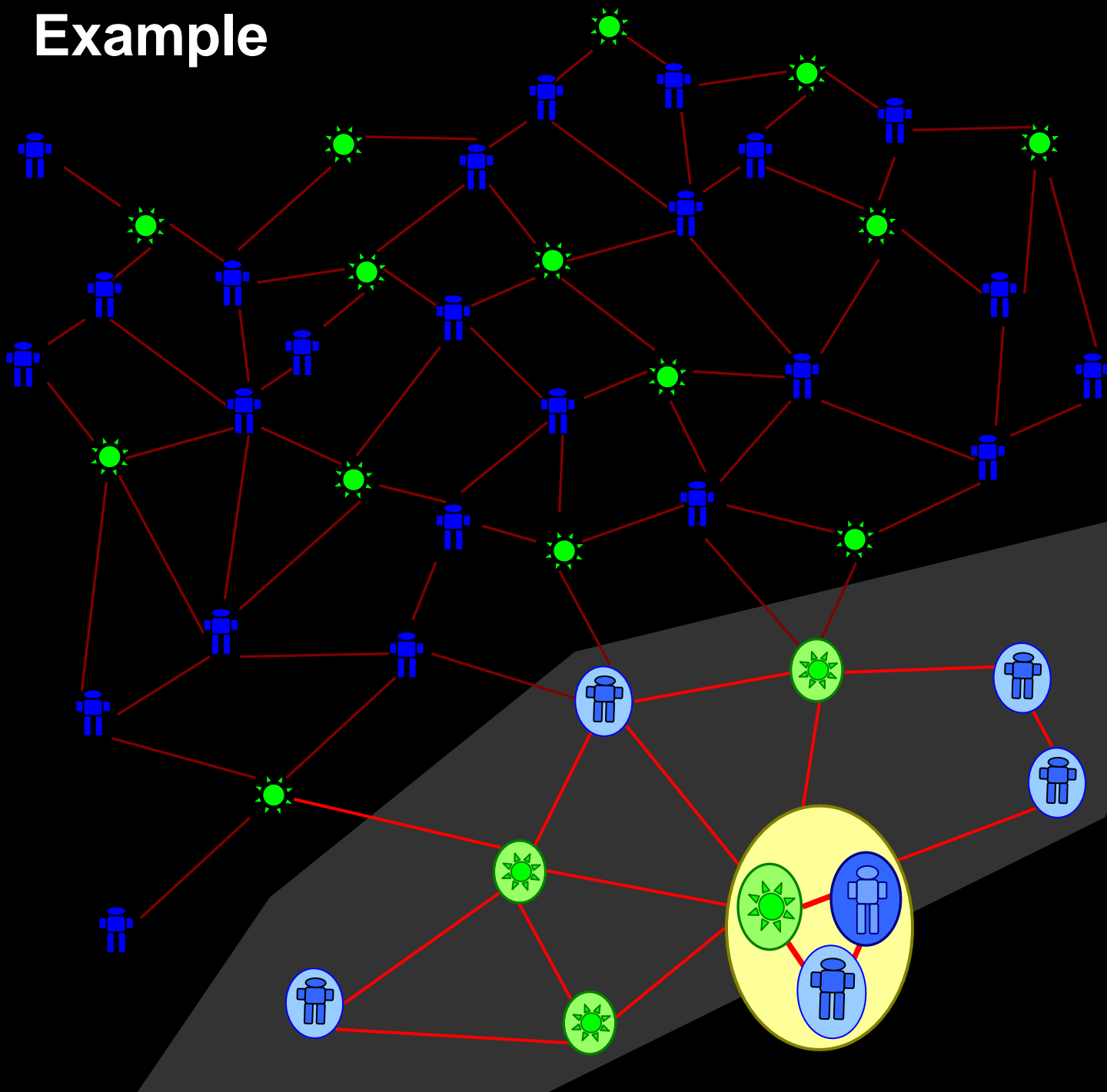


Person B sees the
macro terrain, and
the potential of
technologies,
differently



Technology X
came from
somewhere.
Inscribed in it are
'scripts' (intended
by its designers)
and also potential
uses that the
designers did not
anticipate

Example



A hospital pharmacist attends a newly admitted patient. She cannot easily rouse him to seek consent to view his SCR. She is unable to use the 'emergency' over-ride because in this hospital only doctors may do this

The technology

What was I designed to do – by whom, and for what?

What standards and assumptions have been built into me?

With what other people and technologies do I connect?

How do my material properties affect what is possible?

The clinician

What is my background e.g. identity, values, education, skills?

How do I see the macro terrain (e.g. what do I see as 'my professional body's view')?

What is my clinical assessment of this patient?

What do I think the patient thinks – and what do I think the technology can do?

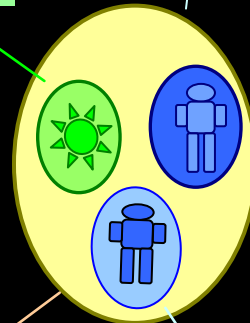
***235 examples,
analysed in depth***

Action in this situation

What is actually done?

What is the short-term impact in this clinical situation?

What is the longer term impact on the way people think and behave?



The patient

What is my background etc?

In what way am I sick – and how does this affect my capacity to consent?

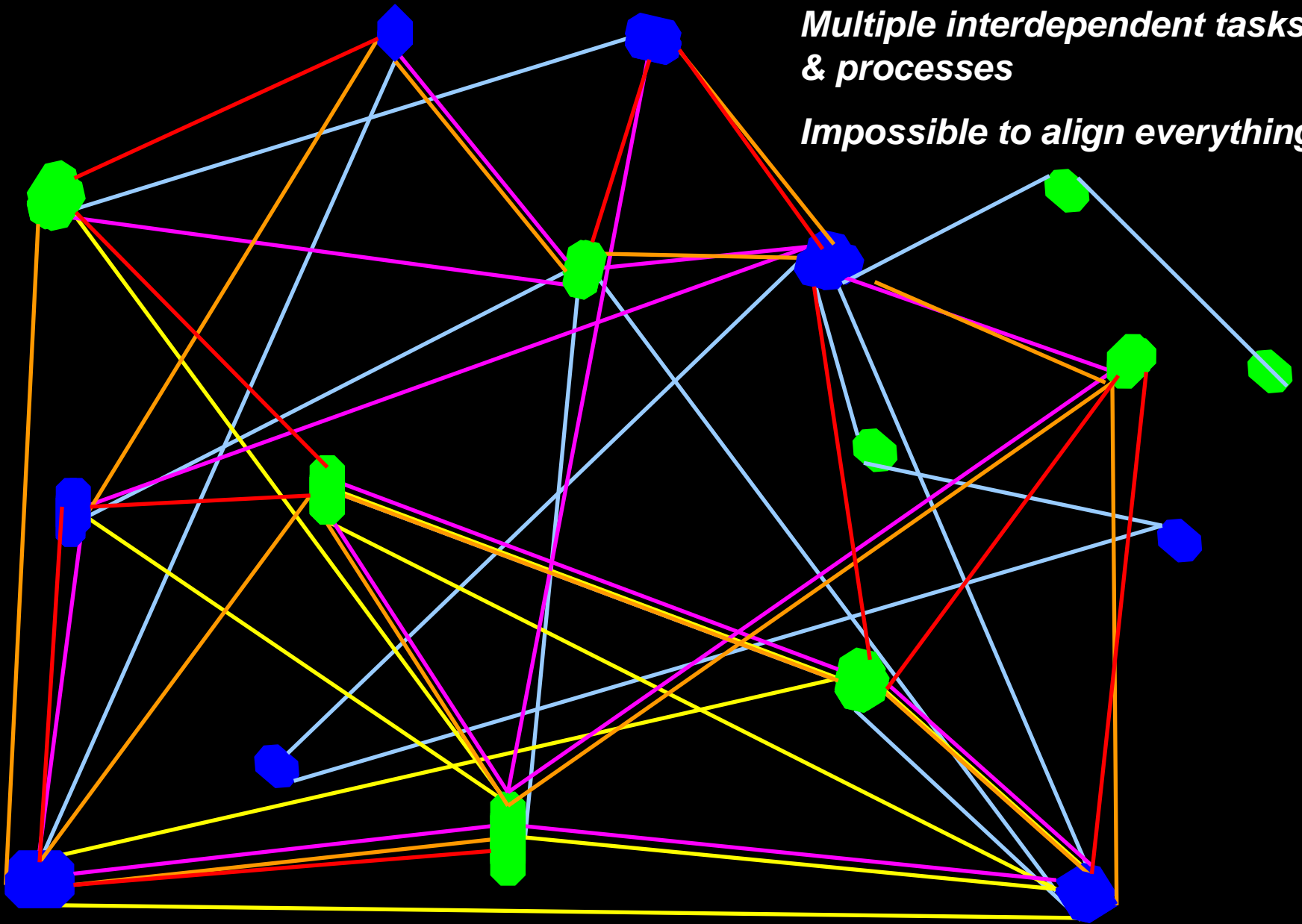
What do I desire (my 'presenting complaint' and my 'hidden agenda')?

What do I think the clinician thinks, and what do I assume about the technology?

Multiple overlapping networks

*Multiple interdependent tasks
& processes*

Impossible to align everything



POLITICAL

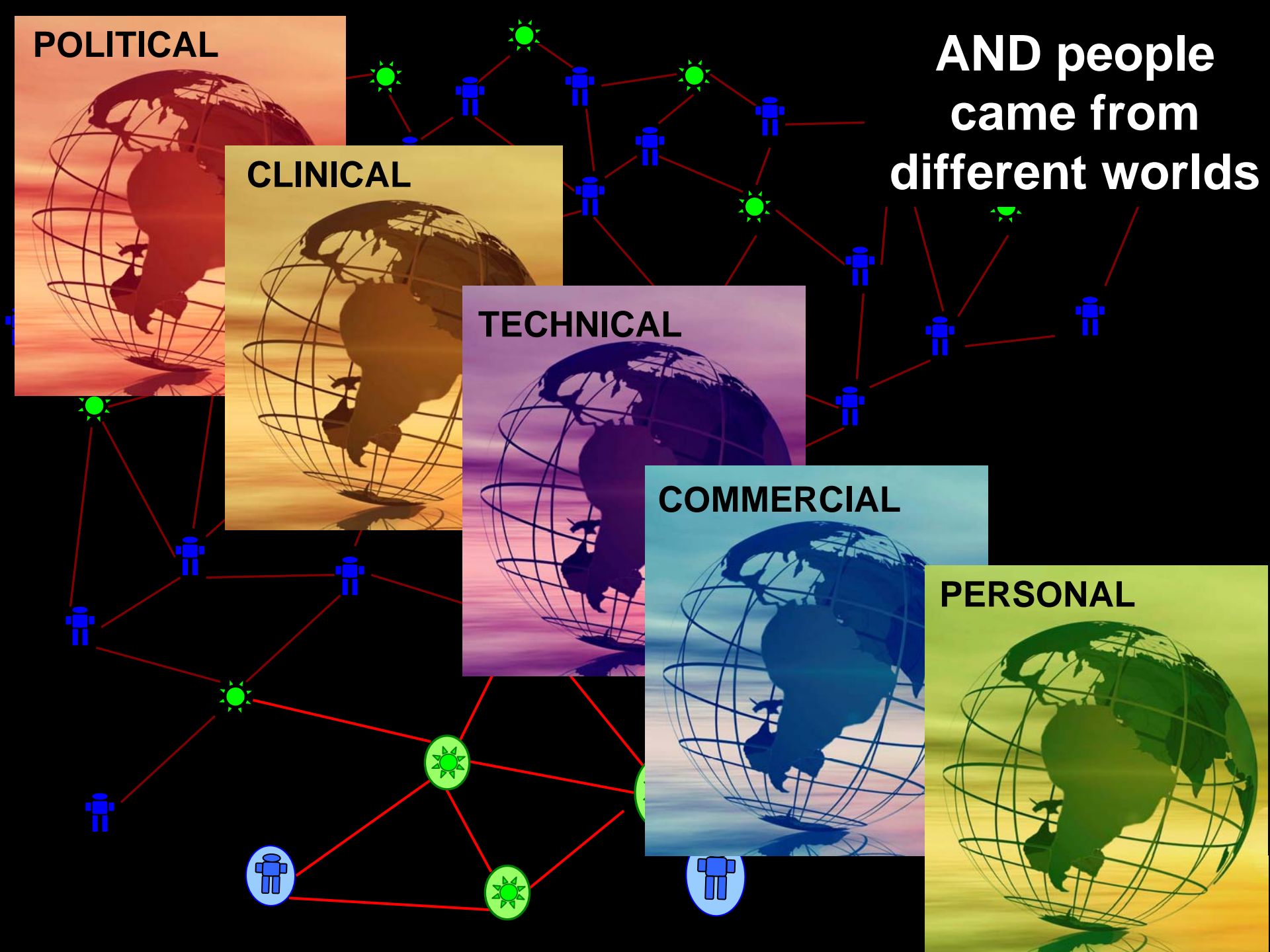
CLINICAL

TECHNICAL

COMMERCIAL

PERSONAL

**AND people
came from
different worlds**



POLITICAL

THE POLITICAL WORLD: SCR is a tool for achieving manifesto promises e.g. sh unnecessary admissions, n

CLINICAL

**THE CLINICAL
quality in out
work and thr**

TECHNICAL

THE ACADEMIC WORLD:

SCR programme is occurring in a 'zone of complexity'. We cannot explain everything via a Newtonian model of the universe. We need new theories, methods and analytic approaches.

**THE TECHNICAL WORLD.
SCR must be innovative,
elegant, fit for purpose &
close to specification**

COMMERCIAL

THE COMMERCIAL WORLD: SCR must bring return on investment. Big contracts increase a company's market position

PERSONAL

THE PERSONAL WORLD: SCR will help my doctor provide personal care for me (but are there risks to my privacy?)

10 BOTTOM-LINE LESSONS



1. The bigger and more interconnected the system...
 - the greater the implementation effort and interdependencies
 - the more pervasive and intractable the wicked problems
 - the greater the need for local flexibility (but the lower the probability of achieving this)

10 BOTTOM-LINE LESSONS



2. Different stakeholders....

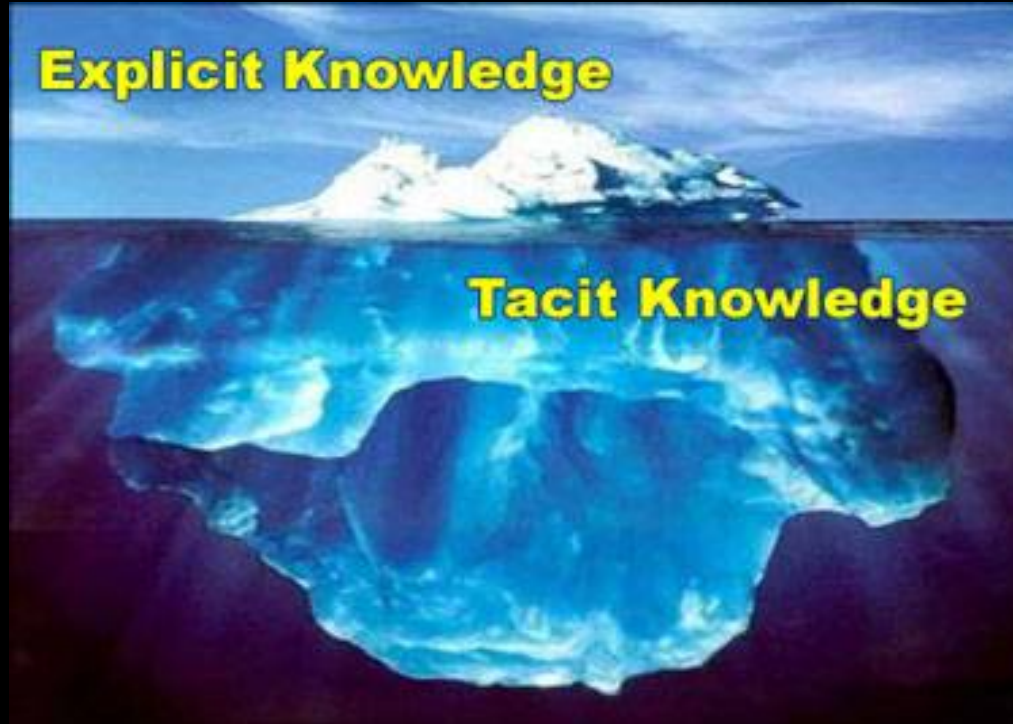
- have different goals, values and priorities
- define 'success' and 'failure' differently
- *must* meet, argue, deliberate, make sense, and come to understand where others are coming from

10 BOTTOM-LINE LESSONS



3. Insoluble tensions and paradoxes will include....
- standardisation versus contingency
 - 'rip and replace' versus 'much-loved local system'
 - protecting privacy versus making data accessible

10 BOTTOM-LINE LESSONS



4. Knowledge is....

- tacit (enacted, embodied, 'sticky') as well as explicit
- collective and relational as well as individual
- context-bound, dynamic, multi-voiced, negotiated
- ambiguous, incomplete, contested

10 BOTTOM-LINE LESSONS



5. The preferred change model is....

- organic rather than mechanistic
- deliberative rather than prescriptive
- continually revisited and renegotiated

10 BOTTOM-LINE LESSONS



6. The programme should therefore include....
- leaders who 'get' the complexities
 - a 'rolling vision' and story of what we are doing
 - competent project management
 - reliable performance data fed back locally
 - space for learning and reflecting
 - budgets for addressing local contingencies

10 BOTTOM-LINE LESSONS



7. Technical development should be...

- 'co-creation' rather than 'engineering'
- alert to the subtle, exception-filled and unpredictable nature of clinical work
- linked to organisational and team development
- [abstain on the 'open source' question]

10 BOTTOM-LINE LESSONS



8. 'Clinical engagement' is....

- not a one-off, all-or-nothing phenomenon
- more about being listened to than being written to
- fragile and fluid, since the 'engaged' are members of multiple other networks and worlds

10 BOTTOM-LINE LESSONS



9. A great deal depends on front-line staff, who....
- bring beliefs, values, motives and meaning-systems
 - usually want to get on with their job

10 BOTTOM-LINE LESSONS



10. Reminders to government ...

- there is no 'tipping point' for big IT
- you're not there to build systems or write standards
- don't throw money at a project you don't understand
- don't equate knowledge with what is passed up the line
- don't impose 'political' milestones



Thank you for your attention

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