Key Note

Understanding and managing information system conflicts

Prof. Albert Boonstra
albert.boonstra@rug.nl
University of Groningen, The Netherlands
Homecare or Telecare?
Telecare

Telecare is the use of ICT to facilitate health and social care to individuals.

Care / cure / safety / social

Telecare services can be part of integrated care arrangements

Policy makers have high expectations: economic, social, organizational advantages.

Heavily subsidized initiatives
Telecare

Video system through the client’s TV that includes: camera, set-top box and remote control, allowing the client to have conversations with a telecarer.

- Care-related information
- Monitoring of health conditions
- Safety issues
- Social care

Telecare requires a corresponding service centre that receives and handles client calls.

Telecare services are often provided as part of integrated care arrangements.

Providers of homecare tend to use telecare as a substitute for other means of care provision, to maintain or improve the quality of care at a lower cost.
Telecare

1. Intake & care plan

2. Scheduling & routing

3. Care provision

4. Client calls

5. Telecare

6. ‘Relevant’ updates

Home care

CARE CO-ORDINATOR

CARER

CLIENT

MEDICAL SERVICE CENTER
Implementing Telecare

Many stakeholders

Multi-agency

Competing goals, tensions and conflicts
Some results of our analysis

- Technology was limited and sometimes unpractical.
- Technology threat to carers, coordinators and clients.
- No wins for coordinators, carers or clients.
- Organization of MSC and alignment with other care is complex.
- Tensions and conflicts.
- Competing goals of stakeholders.
- Forced and top down implementation strategy.
Paradigms of IS implementation

UNITARIST

Utopian/ Optimistic
IS for a better world,
IS = progress, IS = innovation
resistance comes from conservatism and fear

Technical / functional
Agreed goals, specifications, efficiency, usefulness.
Resulting in linear ‘milestone’ approaches

PLURALIST
Diversity of views, conflicting interests. IS advances interests of some at the expense of others.
Tensions, struggle and conflict
Paradigms of IS implementation

UTOPIAN/OPTIMISTIC

TECHNICAL / FUNCTIONAL

PLURALIST

Different theories and approaches towards IT enabled organizational change.
Pluralism: IT enabled change as a dialectical process

‘..Homecare is a physical f2f service..’

‘..Homecare and telecare are complementary as an integrated service..'”

‘..Homecare can be provided from a distance with electronic channels..'”
**Information System (IS) Conflicts**

Very common, many (IS) failures often the result of intense and heated conflicts.

Under researched domain in IS literature. In contrast to sociology, psychology and organizational behavior.

Almost absent in IS text books or training programmes for IS project leaders.

Resulting is low awareness of conflicting characteristics of IS
We can only address IS conflicts effectively when we

- recognize conflict prone projects,

- are able to understand the causes and mechanisms of IS conflicts,

- are aware of approaches to deal with IS conflicts.
To explore IS conflicts I would like to discuss the following topics

What are (IS) conflicts?
  What are causes of IS conflicts?
    Are there IS conflict types?

How do IS conflicts evolve and change over time?
  At what levels can IS conflicts emerge?
    Do IS conflicts always emerge? When and why?

What are ‘conflict prone projects’?
  Are IS conflicts good or bad?
    What are typical theories and papers that address IS conflicts?

How can managers deal with IS conflicts?
  What are interesting research directions regarding IS conflicts?
What are conflicts?

A conflict is: ‘a process which begins when one party perceives that another has frustrated, or is about to frustrate, some concern of his’ (Thomas, 1992).

Conflicts are processes with a beginning and (hopefully) an end.
What are conflicts?

- Disagreement among parties
- Interdependence
- Perceived incompatible goals
- Interference
What are IS conflicts? (1)
IS conflicts emerge from the introduction an information system that is perceived as inappropriate and as a threat to tasks, competencies, processes, values, and power relationships of individuals, groups, or organizations.
What are IS conflicts? (2)

Consistent with pluralist perspective on information systems
Inconsistent with the unitarist (harmonious) view.

Within a pluralist view,
participants have their own legitimate goals.

IS are related to social and political processes.

IS can affect the balance of power.
What are causes of IS conflicts?

Table 1. Overview of included cases.

<table>
<thead>
<tr>
<th>Study</th>
<th>Country/region</th>
<th>Organization</th>
<th>System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case 1) Van Akkaren &amp; Rowlands, [43]</td>
<td>Australia</td>
<td>Large geographically dispersed radiology practice</td>
<td>Enterprise wide IS</td>
</tr>
<tr>
<td>Case 2) Jensen &amp; Aanastad [21]</td>
<td>Denmark</td>
<td>Medium-sized hospital</td>
<td>Electronic patient record</td>
</tr>
<tr>
<td>Case 3) Markus [28]</td>
<td>USA</td>
<td>Large geographically dispersed radiology practice</td>
<td>Financial information system</td>
</tr>
<tr>
<td>Case 4) Knights &amp; Murray [22]</td>
<td>UK</td>
<td>Medium-sized mutual life office</td>
<td>Core contract system</td>
</tr>
<tr>
<td>Case 5) Ahn &amp; Sludlark [1]</td>
<td>USA</td>
<td>Telecommunication services provider</td>
<td>Telecommunication services IS</td>
</tr>
<tr>
<td>Case 6) Boonstra [5]</td>
<td>Europe</td>
<td>Dairy products multinational</td>
<td>Enterprise resource planning system</td>
</tr>
<tr>
<td>Case 7) Chu &amp; Smithon [10]</td>
<td>Europe</td>
<td>Major automotive manufacturer</td>
<td>e-business applications</td>
</tr>
<tr>
<td>Case 9) Lapointe &amp; Rivard [23]</td>
<td>Canada</td>
<td>Acute care hospital</td>
<td>Electronic medical record</td>
</tr>
<tr>
<td>Case 10) Levine &amp; Rossmoore [26]</td>
<td>USA</td>
<td>Large financial transactions</td>
<td>Process management system</td>
</tr>
<tr>
<td>Case 11) Meyer &amp; Young [33]</td>
<td>New Zealand</td>
<td>Mental health enterprise</td>
<td>IS for cost and output information</td>
</tr>
</tbody>
</table>
What were causes of IS conflicts in these cases?

1) IS conflicts emerge from mandatory systems (< > voluntary). (Dependency ↑  Autonomy ↓)

2) IS conflicts emerge from systems that transcend units, departments, or organizations and establish horizontal or vertical links (< > Local systems)

3) IS conflicts arise from systems that aim to standardize, enforce discipline, and monitor (< > Self control).
**IS conflicts emerge in case of contradictory structures embedded in org’s and IS**

<table>
<thead>
<tr>
<th>Comparison</th>
<th>vs</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standardization</td>
<td>Customization</td>
<td>Disciplinarization</td>
</tr>
<tr>
<td>Centralization</td>
<td>Decentralization</td>
<td>Bureaucracy</td>
</tr>
<tr>
<td>Top down</td>
<td>Bottom up</td>
<td>Big bang</td>
</tr>
</tbody>
</table>

Struggle and conflict
## IS conflict types / layers

<table>
<thead>
<tr>
<th>Implementation conflict</th>
<th>Task conflict</th>
<th>Structure conflict</th>
<th>Value conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagreement about</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>process of system design and implementation.</td>
<td>technical qualities, use, functions, financial benefits and business processes.</td>
<td>how the system changes structure, control and redistributes power division.</td>
<td>the effects of the system on shared beliefs, values and culture.</td>
</tr>
<tr>
<td>Lack of training</td>
<td>Technical problems</td>
<td>More control of the work practices</td>
<td>New system conflicted with the customer focused culture of two BUs</td>
</tr>
<tr>
<td>No consultation</td>
<td>Uneasy to use</td>
<td>Losing control, shift of power</td>
<td>Threat to status of health professionals</td>
</tr>
<tr>
<td>Little attention to relationship building</td>
<td>New and undesired tasks</td>
<td>Domination of the working processes of one BU at the expense of those of the other BUs</td>
<td>System caused culture of distrust, suspicion and secrecy among functional groups</td>
</tr>
<tr>
<td>Pushed down the throat</td>
<td>Unequal division of economic advantages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fighting process</td>
<td>Detrimental effects on internal processes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No attention for deeper processes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Value conflicts, an example

Institutional level: Competing logics

Managerial logic

Hospital Manager: ‘the board gave too much room to IT-experts. The board has to prioritize IT and use it for competitive advantage’

Medical logic

Doctor: ‘if you want to heal the patients, you have to make sure that the person who is treating them has the most optimal IT. So, the IT unit should ensure that doctors have the IT support to do this even better’

IT logic

IT Director: ‘history shows that technology determines the changes, not the business’

Managers

Clinicians

IT staff
Conflict types

REACH OF IS CONFLICT

conflict about direct effects of IS

IS - TASK CONFLICT

IS - IMPLEMENTATION PROCESS CONFLICT

IMPACT OF IS CONFLICT

cognitive

IS - STRUCTURE CONFLICT

IS - VALUE CONFLICT

conflict about effects of IS on wider context

affective
Conflict types

system & implementation

TASK CONFLICT

cognitive conflict

ORGANIZATIONAL EFFECTS

IMPLEMENTATION PROCESS CONFLICT

affective conflict

STRUCTURE & POWER CONFLICT

VALUE CONFLICT
How do IS conflicts evolve and change over time?

Typically, IS conflicts begin as an IS implementation conflict. If key actors are excluded during the implementation phase, they may become frustrated and criticize this process.

The conflict may become more intense when the system is actually implemented, and when parties feel frustrated about a perceived lack of usefulness, incompatibility with work processes, or unequal division of financial benefits.

If this situation develops, the IS implementation process conflict is likely to be followed by a more intensive IS task conflict.

If this IS task conflict is ignored, more ‘indirect’ IS structure conflicts or IS value conflicts may arise. As such, IS conflicts can evolve and worsen over time if not addressed in a timely and acceptable manner.
Conflicts evolve over time and can change
At what levels can IS conflicts emerge?

Interpersonal, Intergroup, and Inter-organizational levels.

*Interpersonal IS conflict* occurs when two individuals within a department disagree about the functionality of a contract system.

*Intergroup IS conflict* when they address a situation in which two business units strongly disagree over a telecommunications services system.

*Inter-organizational IS conflict* where two hospitals disagree over the system being introduced to share patients’ medical data.
Do IS conflicts always emerge? When and why? What are ‘conflict prone projects’?

Multi stakeholder environments

Conflicting interests, cultural backgrounds, ideas

High degree of integration, impact on work, mandatoriness

High dependence from other systems, projects, external parties

Big projects

Low ability for change

Limited expertise of implementers/project group to deal with diversity.
Are IS conflicts good or bad?

**BAD:** Negative phenomenon. Dysfunctional, leading to disruption, stagnation, and disputes during the design and implementation process.

→ Managers should be active preventers and resolvers of conflict.
Are IS conflicts good or bad?

**GOOD:** Conflicts are healthy signals of growth, development and diversity. IS conflicts can be functional when they contribute to signalling problems or unintended effects. Such a signal can lead to a better system.

*Meissonier and Houzé [2010]* concur and argue that latent conflicts during IS development should be made explicit. Their view is that a passive management style stimulates team members to more effectively cope with conflict situations.

IS conflicts can be a natural and productive part of almost any change process in organizations that result in threats and disagreements about the change involved.
Three views on conflicts

A barrier to be removed (something bad)

A means of stakeholders to express their discomfort (neither good nor bad)

A legitimate way to improve or prevent for something bad (→ good)
How can managers deal with IS conflicts?

Identify conflict types and resistance potential of projects at an early stage

Communicate in early stages with relevant groups

Follow small steps in high conflict contexts

Attention for social organizational dimensions of IS

Communications in various logics / languages

Preparedness to negotiate, to adapt, to change, to slow down.
## Implementers’ responses to conflict— a taxonomy

<table>
<thead>
<tr>
<th>Integrative Problem solving approaches</th>
<th>Implementers identify conflict causes and solve them by actively looking for a solution.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Compromise</strong></td>
<td>Implementers try to reach consensus and an acceptable solution. Rectification of system or adding resources.</td>
</tr>
<tr>
<td>Distributive Asserting approaches</td>
<td>Authoritarian decision imposed to all parties. Coercion, reprimanding parties.</td>
</tr>
<tr>
<td><strong>Accommodating</strong></td>
<td>Implementers give up their own preferences to satisfy the other parties claims</td>
</tr>
<tr>
<td>Avoidance approach</td>
<td>Implementers do not intervene and hope for the self resolution of the conflict. Inaction, ignorance, wait and see</td>
</tr>
<tr>
<td>Low ambiguity</td>
<td>Low conflict</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Administrative implementation</td>
<td>Goals and means are known. Solutions for issues are clear.</td>
</tr>
<tr>
<td>Experimental implementation Goals and values are not contested and the contextual conditions become crucial for successful implementation</td>
<td>Symbolic implementation Outcomes determined by the degree of power or the coalitional strength of the implementing agencies.</td>
</tr>
</tbody>
</table>

What are research directions regarding IS conflicts?

Causes, types, layers and evolvement of IS conflicts

Strategies to deal with conflicts, depending on conflict types and phase

How particular information systems result in particular conflict types

IS conflict resolution strategies
Conclusions

1 Conflicts are consistent with a pluriform view on organizations and inherent to IS implementation

2 Conflicts are not sufficiently addressed in IS research and education

3 IS conflicts are caused by a range of reasons and can even be predicted

4 IS conflicts should be managed in ways that are consistent with the causes and types

5 IS conflict awareness among educators, researchers, managers and implementers would result IS project success
Thank you