The Limits of an Ostrich Policy for Resolving
Dialectical Conflicts

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Abstract

In this paper, we analyze the introduction of the Australian Integrated Cargo System (ICS) in order to improve our understanding of eCustoms innovations in Europe, primarily Single Window services. We combine the case study with a theorization based on socially constructed change in networks. The development and diffusion of eCustoms solutions takes place within an elaborate network of businesses, government agencies, and technology providers. We focus on the ongoing dialectics during change in such a network. This means we zoom in on the constant confrontations and conflicts of both interests and understandings of contents, processes, and outcomes of change. These conflicts potential shift change in unintended and unwanted directions, resulting in perceived failure. We critically reflect on the practical lessons that surfaced from the Australian ICS-Import case, where we observed a tendency to avoid facing conflicts, ignoring them, or dismissing them as not important. Our analysis demonstrates that using a dialectic approach can provide substantial insights in eCustoms innovation. We offer a characterization of conflicts and we contribute to the discussion of eCustoms in Europe.

Keywords: eCustoms, change, dialectical conflicts

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1 Introduction

Many changes and innovations that we see in governments nowadays go hand in hand with their strive for further ‘rationalization’, often characterized as New Public Management (Dunleavy et al., 2006; Hood & Peters, 2004; Wastell, 2006). In this tradition of reforms, the adoption of business philosophies such as process reengineering and the use of ICT appear to have a seamless fit (cf. Chatfield & Bjørn-Andersen, 1997; Willcocks et al., 1997). However, like the findings in organizational and IS studies also show for industry, the results of eGovernment are not necessarily positive, and our understanding as to why and how information systems fail or succeed, is still limited (cf. Boudreau & Robey, 1999). Here, we analyze the Australian Integrated Cargo System (ICS) case, which in general terms has been considered a typical case of IT failure:

“It was widely reported to have massive cost blowouts, to have run wildly over time, to be bug ridden, to be slower than the system it replaced, and to be a spectacular failure with cargo piling up on the docks during the pre-Christmas rush period.” (Marshall, 2006, p. 30)

The purpose of this exploratory study is to demonstrate how the use of a theory of dialectics could contribute to further our understanding of success and failure. Thus, in this paper, we set out to investigate the emergence of Single Window (SW) services as part of customs-related eGovernment. eCustoms focuses on interactions between businesses and governmental agencies related to cross-border trade. Single Window services are positioned as one of the key solutions to achieve the objectives of enhanced efficiency and control of trade, lowered administrative burden and improved security by means of ICT applications (UN/CEFACT, 2006). The concept of SW entails that it is possible for companies to interact with government bodies in a ‘one stop shop’ manner. For eCustoms, data concerning export and import are submitted electronically which should e.g. speed up clearances but also facilitate automated risk assessment (Bjørn-Andersen et al., 2007).

Our focus here is less on the technological side and more on the organizational. In particular, we reflect on socially constructed IS-based change in organizational networks. Technological developments go hand in hand with socio-political and cognitive changes that lead to new processes, new forms of organizing, and new institutional forms.

Figure 1. The concept of dialectics\(^2\) (Van de Ven and Poole, 1995, p. 520)

\(^2\) Note: the arrows on the lines represent the likely sequential order of events, not causation between the events (Van de Ven and Poole, 1995, p. 520)
In accordance, one can view such change as socially constructed through a dialectic mechanism (Benson, 1977; Van de Ven & Poole, 1995) as depicted in Figure 1.

“Change occurs when these opposing values, forces, or events gain sufficient power to confront and engage the status quo. […] So, for example, an entity subscribing to a thesis (A) may be challenged by an opposing entity with an antithesis (Not-A), and the resolution of the conflict produces a synthesis (which is Not Not-A [and also Not A]).” (Van de Ven and Poole, 1995, p. 517)

A dialectic view especially useful in understanding areas of potential and emerging conflicts. The conflict can refer to interests and also to understandings that may vary (Benson, 1977). As result of some form of ‘resolution’, change takes place as new constructions and arrangements emerge. Such dialectics are ongoing (Van de Ven, 2005).

The remainder of this paper is organized as follows. First, we present a brief background on Single Window and highlight a theory of dialectics influencing change in networks. Then, we report on our methodological approach, followed by the case narrative. In the discussion thereafter, we reflect on both the practical and theoretical lessons of the Australian experience in relation to Europe. Lastly, we draw our conclusions.

2 Background

2.1 eCustoms Single Window solutions

SW services are intended to enable competitiveness by e.g. reducing the administrative burden for businesses when conducting interactions with Customs authorities, while improving security (anti-terrorism, border protection, fraud detection, etc.). A Single Window is defined as:

“A facility that allows parties involved in trade and transport to lodge standardized information and documents with a single entry point to fulfill all import, export, and transit-related regulatory requirements. If information is electronic, then individual data elements should only be submitted once.” (UN/CEFACT, 2005, p.3)

The SW should be available at any point at a counter in a governmental office or at member states’ web services. For example, a European vision is that an Italian company may arrange all its import and export customs and taxation documents for a transit cargo from Rotterdam (Netherlands) to a customer in Denmark using a website of the Italian public administration.

The following ambitious vision regarding eCustoms and Single Window reflects a generally positive view on the use of information technology in governmental contexts, which has also been observed in a review of eGovernment publications (Heeks & Bailur, 2006).

“[Single Window services] can enhance the availability and handling of information, expedite and simplify information flows between trade and
government and can result in a greater harmonization and sharing of the relevant data across governmental systems, bringing meaningful gains to all parties involved in cross-border trade. The use of such a facility can result in improved efficiency and effectiveness of official controls and can reduce costs for both governments and traders due to better use of resources.” (UN/CEFACT, 2005, p.3)

2.2 Dialectics of change

In applying a dialectic view, innovative change is seen to grow out of an extensive network of government, businesses (industry), consultants, and technology providers. Further, it will impact an even broader network when the system comes into use. We can generally characterize any network by distinguishing between several levels/ layers, within which actors (inter)act. Actors are “active participants who become embroiled in diverse, partisan, and embedded issues of innovative development” (Van de Ven, 2005, p. 365). These characteristics of actors are crucial. Van de Ven (2005) argues that knowledge intensive innovations occur because people “run in packs” and are “political savvy”.

In order to gain momentum, it is generally assumed that aligned interests and a shared understanding is the basis for establishing the necessary significance and legitimacy of the change. However, considering actors to be partisan means that they have dissimilar and conflicting interests, as well as unshared knowledge. Dialectical conflicts may hamper the actors’ ability to mobilize resources (power exertion) and form networks to engage in collective action (Hargrave & Van de Ven, 2006).

“By its very nature, the synthesis is a novel construction that departs from both the thesis and the antithesis. However, there is no assurance that dialectical conflicts produce creative syntheses. Sometimes an opposition group mobilizes sufficient power to simply overthrow and replace the status quo. Thus, also, many organizations persist by maintaining sufficient power to suppress and prevent the mobilization of opposition groups. [...] In terms of organizational change, maintenance of the status quo represents stability, but its replacement with either the antithesis or the synthesis represents a change, for the better or worse.” (Van de Ven and Poole, 1995, p. 517)

To sum up, theorizing about contradictions and conflicts in networks, regarding interests and objectives, as well as ideas and knowledge, gives us insight in the ways in which changes emerge over time. In essence, dialectical theory proposes that change always occurs because of an underpinning conflict, when (groups of) people aim for new goals (dialectic of interests) or learn how to improve a certain process (dialectic of understanding). This provides an alternative way of looking at SW innovations that are often based on a rationally planned and managed approach. As Benson (1977) remarks:

“Social construction-production is not a rationally guided, centrally controlled process. Despite the efforts of administrations to contain and channel the process, some elements in the organization and outside of it remain beyond the reach of rationalization.” (Benson, 1977, p. 14)
After this short introduction to SW and dialectics in the context of socially constructed change, we now turn to our methodology.

3 Methodological considerations

In the next section, we present a narrative of the introduction of the Integrated Cargo System in Australia in support of business-government interactions. It is based on extensive secondary materials available on the Internet. We used the search string “Integrated cargo system” + Australia + customs in search engines Google, Yahoo, and Kartoo (meta-search). This yielded public information from the Australian government, (conference) presentations, press releases, and news items. Furthermore, we accessed databases from the EU and UN/CEFACT. Due to space limits, we will only be able to stress certain events that reportedly shaped the trajectories and analyze related dialectics that we signal. For an extended overview, we like to refer the reader to our key sources (Australian Customs, 2007; Booz Allen Hamilton, 2006; Marshall, 2006).

The empirics needed to be filtered to the extent that some of them are more promotional than instructional in nature. However, we attempted to employ a cautious and inquisitive edge to tackle this and judge the material. Furthermore, stories from different sources were triangulated to the extent possible. The advantage of the approach is that we were able to utilize electronically published data to provide further understanding of the application of SW.

Detailed information on the process of confrontation and establishment of syntheses requires a more in-depth study where researchers preferably “live in” the situation. Therefore, the purpose of our study here was to identify apparent differences in opinions, views, etc. and signal dialectical conflicts. From our initial analysis, we concluded that a further categorization of the conflicts is an important contribution for understanding the dialectics.

We have investigated dialectical conflicts in relation to:

1. Contents of change (e.g. objectives, organizational processes, technologies)
2. Processes of change (e.g. project approach, events)
3. Outcomes of change (e.g. perceptions of results, accountability/responsibility)

We should note that this categorization primarily serves analytical purposes. The three types are intrinsically interlinked and interrelated aspects of change as a whole.

Our theorization sheds new light on the case and we believe this helps to establish a set of practical and theoretical reflections that can be of assistance in other SW and eCustoms endeavours.

3.1 Introducing the case: timeline, system, and network

As early as 1978, the Australian Customs implemented COMPILE, an interactive system for import declaration, of which a renewed version was implemented in 1986. In the course of the 1990s, the Australians followed new technological developments, using EDI and Internet interfaces (Chatfield & Bjørn-Andersen, 1997). By 1996, COMPILE and the other separate import/ export systems were
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officially seen to have reached their limits, both in technical terms (e.g. the crashes that occurred, and possibilities offered by outsourced, integrated Internet-based solutions) and in relation to the shifts in strategic directions (Marshall, 2006).

The 1996 Cargo Management Strategy (CMS) included (Booz Allen Hamilton, 2006, p. 7):

• closer links with clients
• greater cooperation and coordination amongst government agencies
• an integrated cargo system

Further, a significant Cargo Management Reengineering process started up (CMR project), targeting organizational processes and linking to legislative changes as well. In line with the concept of Business Process Reengineering, the change towards improved practices included a “paperless solution” and hence the development and implementation of a new, integrated ICT solution, the Integrated Cargo System (ICS). In 2001, after 9/11, the security and control requirements became much more stringent, and regulation rather than facilitation took center stage (Booz Allen Hamilton, 2006). Though not mutually exclusive per se, these could become two conflicting objectives.

The ICS consists of four major modules (Booz Allen Hamilton, 2006, p. 16):
1. Exports – manages cargo exports functionality;
2. Imports – manages cargo import functionality;
3. Client – a single view of clients (any external stakeholder the systems interact with) across both Imports and Exports;
4. The Customs Risk Assessment (CRA) – a repository providing information for risk assessment on any message entering the system.

The system makes use of a secure Internet Gateway (CCF). Externally, the ICS also has to communicate with the third-party software used by the different members of the Customs network.

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**Figure 2.** A simplified visualization of the network surrounding the ICS change
The broad network in which the changes take place can be characterized as a very heterogeneous one, with many differences, and consequently the network is prone to contradictions and conflict at a variety of levels. Figure 2 provides a simplified overview. We like to remark that it is often the case that change is “targeted” at aggregate levels, whereas dialectics suggest that it is crucial to have an understanding of both the whole and the individual (Benson, 1977).

After several shifts in the deadline, the Imports module went live October 12, 2005 – two years later than originally planned and costing A$ 205 million instead of the A$ 30 million prognosis of 1996. Severe problems arose and, amongst other things, containers stranded at the docks of Australia’s ports. As a result, there was a lot of upheaval about who was to blame, e.g. users for not using the system properly or government for not managing the project properly. Some people even wanted to turn back to the old system COMPILE (Australian Customs, 2007; Davidson, 2006; Marshall, 2006).

With the new integrated system remaining in place as a mandatory solution, Australian Customs worked on improving the functionality. Thus, the ICS evolved further (Australian Customs, 2007). Whereas progress was signaled, for instance in the Booz Allen Hamilton report, companies using the ICS reportedly still complained about the fact that they still had to use workarounds, even a year after its introduction (Booz Allen Hamilton, 2006; SwizStick, 2006).

In the next section, we zoom in on the conflicts and contradictions that we identify from the case materials. We structure our narrative along the three types of dialectics (contents, processes, and outcomes) we observed relating to the Import module of the Integrated Cargo System (ICS).

4 Dialectics of change surrounding ICS-Import

4.1 Contents of change

The Cargo Management Reengineering (CMR) project, of which the ICS implementation is one of the key pillars, was developed according to the New Public Management philosophy of rationalization of government. For example, March 29, 1999 the Minister for Justice and Customs Senator Vanstone mentions that:

“The prime aims of CMR are to reduce costs and improve performance through better business processes and technologies, rationalizing government requirements and using the one set of data wherever possible.” (Australian Customs, 1999)

Before 9/11, business facilitation was the key focus – easier reporting and faster processing and clearance of containers. The following quote from Gary Grant, Australian Customs, for his 2000 presentation to the University of Canberra, is another illustration of this vision:

“Not only should our technology be as modern as possible but we must ensure business processes are in harmony with the needs of industry and government. In short, we have recognized the need to re-engineer our
systems - not just convert current business systems to operate on new technology.” (Grant, 2000)

After 9/11, interests of Customs shift much more towards border protection. In practice, this means more strict requirements for reporting and additional measures to ensure that containers are un-sabotaged. One of the apparent contradictions lies exactly in the question how these twin objectives can be achieved simultaneously – more security appears to come at the cost of business support and vice versa. However, this was not considered to be the case:

“The use of high-quality data flows, enabling high levels of automation and improved risk management, will provide benefits for all parts of the supply chain, but all parties have to play part in the improvement. These improvements will therefore need to be pursued collaboratively and by working at a strategic level, where the interests of all parties most easily coincide. We further believe that trade facilitation and border protection are enhanced by the measures we have outlined, and that these two high-level objectives need not be considered as in conflict with each other.” (Booz Allen Hamilton, 2006, p. 38, emphasis added)

It appears here that a firm optimism goes hand in hand with a tendency to dismiss dialectics.

Another dialectics concerns the exact changes that are required regarding the ways customs processes take place. For Customs, practices were simplified to collect appropriate data and perform better risk analysis. For Industry, changes involved cargo declarations and reporting and influenced for instance cargo releases (Booz Allen Hamilton, 2006). Within the network, there were multiple conflicting interpretations of exactly how the eCustoms systems should be transformed and which requirements and functionality the ICS should support. This relates to the question as to who is actually able to understand the processes – does Customs capture the needs from Industry? Are companies smart enough for the eCustoms solution?

“There was a strong support from participants for local Customs staff as they are seen as hard working and knowledgeable about the industry. However, Customs management in Canberra is seen as “them” and “they” who lack any practical knowledge of the industry, have a regulatory attitude rather than a genuine consultative approach as a consequence of their experience in other government departments, are detached from what really goes on and are thought to be the root cause of many problems in the industry.” (Booz Allen Hamilton, 2006, p. 55)

“There is little evidence that the system functionality and data requirements were well understood, let alone accepted, by large parts of the industry. […]Parts] of industry did not have a good understanding of the nature of the system, its sophisticated matching requirements.” (Booz Allen Hamilton, 2006, p. 30)

There appeared to be an assumption underneath that Customs and (parts of) industry could be treated much more homogeneously than they essentially were, thereby ignoring the differences in interests and representations, and the
dialectical tensions between them. Consequently, it appears that the limits and opportunities of the change at hand could not be identified appropriately.

4.2 Processes of change
As mentioned, the general approach to the change falls in the category of “rational planned approach”. Australian Customs laid out detailed plans for the change that followed contemporary management and IS philosophies including Business Process Reengineering and outsourcing to third parties. By following “Best Practices” proposed by e.g. consultants and technology suppliers, they aimed for a smooth design and implementation process. However, exactly what these “best practices” are, is controversial and contested (Swan et al., 2000). Furthermore, such guidelines are necessarily incomplete schemata that, although they can guide actions, will not fully prescribe actions. That leaves room for different interpretations and both desired flexibility and unwanted deviations (Becker, 2004). Thus, we may say that any approach gives a source of dialectical tension, when we look at a complex network and developments over time. This is also illustrated by the changes in the project that Computer Associates, when they became involved, and Booz Allen Hamilton in their review proposed (Australian Customs, 2002; Booz Allen Hamilton, 2006).

Another illustration of different process-related perceptions is the frequently mentioned challenge of the shifting deadlines. On the one hand, consultants and the Australian government strived for “hard” deadlines, even by their regulations. However, in 2002 one of the first tasks of the new consultant Computer Associates and the consortium they led actually was the establishment of new deadlines (Australian Customs, 2002). Furthermore, at various points in time, deadlines were postponed (Bajkowski, 2003). There was a push by industrial associations like the Customs Brokers & Forwarders Council of Australia (CBFCA) to postpone the deadline whereas others wanted to go ahead.

“Leading up to the implementation of ICS Imports, Customs was receiving conflicting reports of industry readiness, including from the CBFCA (reporting a “not ready” status) and large companies that Customs was working closely with (“ready and keen to go”).” (Booz Allen Hamilton, 2006, p. 32)

In the end, the ICS – Import was introduced with a 2-year delay from the original plan.

4.3 Outcomes of change
January 2004, industry representatives reportedly voiced their worries that the new system would not facilitate their trading, but actually slow down the Customs processes (Booz Allen Hamilton, 2006). But for project management, optimism still ruled. A consultant from the main consultant Computer Associates for example reported in a presentation May 2005 that the project was on budget and on time (England, 2005).

However, after the scheduled transition period (July – October 2005), things went awry.
“Unfortunately Customs and other industry participants (AQIS, wharves and terminals etc) have not been ready and consequently the new ICS system has in the first 2 days of operation since Wednesdays commencement almost ground to a halt. […] Despite the preparation & training VISA has undertaken over the past 2 years, there is a reliance on others in the chain to successfully transmit their EDI messaging, that is beyond of our control. […] Customs ignored the requests [to delay the deadline] and at the busiest time of the year pushed ahead despite the system remaining untested in many areas.” (VISA, 2005, emphasis added)

Although Customs acknowledged that problems arose, there were different opinions on the extent of the failure and on who would take responsibility or become the scapegoat for it (Philipson, 2005). In addition, when the Industry groups met with the Minister, they articulated a concern (frustration?) with the media and other parties that according to them aggravated the problems.

“There was agreement that misinformation and rumors circulating about cargo issues had been unhelpful.” (Australian Customs, 2005)

Later, Australian Customs’ CIO Murray Harrison was quoted to say:

“It’s about perception. From our end, consider that of the more than 16,000 business rules that ICS manages, there were probably problems with fewer than 200 of them so the fail rate from this perspective was small.” (Davidson, 2006, emphasis added)

Aiming for a forward-looking evaluation, the Booz Allen Hamilton Report clearly tries to maintain a diplomatically positive outlook on the project and its outcomes. Whereas the point-by-point analysis of objectives, benefits, and objectives suggest that most of them have not been met (Booz Allen Hamilton, 2006), they conclude that:

The ICS is now a stable system, is showing good functionality and is performing reliably. The ICS offers substantial benefits over the legacy systems it replaces. It is integrated, well structured, it is based on high integrity data architecture and is highly configurable. In these respects, the ICS is among the better examples of Customs systems available among the developed nations. We believe that the integrated nature of the system and its modern architecture represents a sound base on which Customs can base further improvements.” (Booz Allen Hamilton, 2006, p. 2)

On the contrary, Senator Joe Ludwig (shadow Minister of Justice and Customs) reportedly said that the review clearly showed that the ICS system had:

- Failed to expedite sea cargo by any measure — despite costing A$205 million
- Failed to deliver streamlined and simplified dealings with Customs
- Failed to deliver on improved security via cargo profiling
- Failed to deliver any cost efficiencies (AirCargo, 2006)

Like others, he regarded the new system worse than the previous one and wanted to reverse the implementation. Yes, the good old COMPILE!
Yet since there was no turning back to the old systems, Customs addressed the need to cope with problems and improved the functionality of the system. “ICS updates” published on the Australian Customs website demonstrate this continuous and still going process of ad-hoc problem solving and evolving system functionality. On the other hand, even after more than a year, users still reported to use workarounds to ‘fudge’ the system. As Bob Wallace, managing director of Wallace International and chairman of the Customs Brokers and Forwarders Council of Australia, reportedly said:

“We workarounds will probably be in place for at least another two years. Customs is telling us that because of fundamental design problems it’s not going to be easy to change them all.” (SwizStick, 2006)

Such workarounds reflect dialectics of workarounds as a source of flexibility to adapt the system to the actual practices and workarounds as unwanted “side-effects” of a system that does not meet requirements and expectations.

5 Discussion and recommendations
We observe that the Australians clearly practiced following many managerial guidelines that are considered to enable IS success. But even though they were successful in some respects, they failed in others. This calls for a second look at the Australian case. While we do that we draw from our observations to discuss key lessons for the European context.

Like the Australians, the EU and the ITAIDE consortium aim to achieve the twin objectives of trade facilitation and enhanced security. There is a strong political will to introduce SW because it is considered a crucial means to stimulate national and international trade. Partly, the SW initiatives are driven by overarching international agreements and policies within bodies such as APEC, UN, WCO, and TAXUD (EU). A significant difference with the Australian situation is that the efforts are at an international, rather than national level. This poses additional (dialectical) challenges as the network expands considerably in the international European setting.

Clearly, the eCustoms developments match the New Public Management movement and overall managerial practices that have emerged in the past decades. Public communications and reports such as the one from Booz Hamilton Allen reflect this (Booz Allen Hamilton, 2006). We are afraid, though, that the rationalistic view of the world, which often prevails in the New Public Management and eGovernment context, does not capture the informal, personal, contextual, emerging, and interacting ways in which many of the processes actually get shaped and take place. This means that this view is also more likely to cover up the ongoing dialectics surrounding the changes, as people tend to ignore or underestimate conflict.

The EU approaches their information technology efforts in two considerably different ways. First, they have a top-down manner of laying out long-term strategies as well as requirements that member states are obliged to adhere to. In some cases, the different countries have had considerable freedom, in relation to their national policies. This has led to a diversified portfolio of separate technological solutions. More recently, though, efforts have been more directed
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towards actual standardization and unification, but still from a top-down perspective. Second, the EU supports projects like ITAIDE, where there is a more bottom-up approach towards innovations and where collaboration between partners from government, industry, and academia is much more stimulated. This in itself opens the way for novel ideas in the search for improvement of Customs and other governmental functions.

Within the European context, part of the SW solution presumably lies in finding ways to leverage interoperability. One issue is that the applied customs procedures vary across countries. This variation is partially due to differences in legislation, but it also has a political and cultural background and reflects the roles that Customs has within each national context. For instance with regard to trade within the EU, it is still a prevailing perception that this is “cross-border” instead of perceiving Europe as one unified region. This brings us to another area addressed by the notion of dialectics, namely the establishment and preservation of identity (Truex et al., 1999). A theory of dialectics raises awareness of the fact that a “European identity” does not quite exist, provides explanations why, and how this potentially affects change. We foresee that integration of eCustoms systems across Europe will drive Governments to solve practical problems of regulatory standardization and data exchange format standardization. The negotiation process and implementation of this, however, will not be an easy task if one compares with the Australian case.

We also like to draw attention to the potentially obligatory use of Single Window services, a policy used in Australia. This does not mean that the requirements are less stringent. On the contrary, if there are any problems with the software, the situation could be much worse if a mandatory strategy is selected. The “one size fits all” adagio does not necessarily hold. For instance, knowledge-related dialectics are likely to occur. One way of resolving such conflicts entails privileging certain knowledge (from certain groups) over others. If government introduces a mandatory solution, their perspective generally “wins”. However, the silencing and ignoring of other perspectives does not mean that the conflicts go away (cf. Wagner & Newell, 2004) and (re)actions from others are not likely to be totally compliant. That may result in use that is different than anticipated, as we saw in the Australian case (Boudreau & Robey, 2005; Feldman & Pentland, 2003).

One way to benefit from dialectical tensions is to surface limits and opportunities, which can form the basis for a process of reframing, to mobilize network members to engage in collective action, as described by Hargrave and Van de Ven (2006) (cf. Rukanova et al., 2007). Again, we need to take into account that also a network like formed by ITAIDE partners is heterogeneous, so there are contradictory perspectives, interests, and the knowledge amongst members differs substantially. The key question is how to leverage this diversity as creative tension. This would for instance take shape in the form of learning. A theory of dialectics thus also has a certain overlap with theories that investigate topics of organizational learning and knowledge in relation to IT change (Attewell, 1992; Orlikowski, 2002; Robey et al., 2000).
We also observed different use because of workarounds. Some of these workarounds will reflect official policy and instructions by Customs, but it should also be expected that part of the workarounds will be unreported, underground ways to tweak the system at the level of individual companies and also users (Pollock, 2005). Dialectics surrounding workarounds can be considered as a source of flexible adaptation, emphasizing the positive aspect of dialectics as a foundation for further change (Benson, 1977; Orlikowski, 1996, 2000).

6 In conclusion
The development and diffusion of the Single Window is an important element of the overarching strategy in the EU to facilitate cross-border trade. From the Australian case, we can conclude that SW can provide substantial benefits. Data can become of higher quality and electronically available making it possible for Customs to perform better risk analysis and exercise control of security-related issues. For businesses, easier and paperless reporting plus improved response times from Customs can facilitate trade. However, from the Australian case we also need to conclude that it is not a simple process of applying “best practices”.

The three categories of conflicts (content, process, and outcome) we introduced may help to suggest possible actions to bring about successful change. On the other hand, a view of ongoing dialectics cautions us that innovations like SW may well remain complex and unpredictable change endeavours. Dialectical theory suggests that although we may create awareness of the existence of conflicts, it is not necessarily possible to prevent or stop them when they occur. We argue that a theory of dialectics has a huge potential and can provide valuable insights for eCustoms innovation and adoption.
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