

TRUST IN ELECTRONIC COMMERCE BUSINESS RELATIONSHIPS

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ABSTRACT

The concept of trust in electronic commerce literature has emerged over recent years. Whilst trust has always been an aspect of business generally, in the digital economy it has taken on a more pivotal and visible role. When trading with someone, with whom you have no physical or visible contact it is imperative that the two parties have some basis for having confidence in the transaction. It is the governance of these commercial relationships in electronic commerce that will be explored in this paper. In particular, the basis of trust relationships will be considered and theoretical models of transactional structures and processes evaluated from a trust perspective.

Keywords: Electronic commerce; Trust; Governance; Market Structures

1. Trust in Commercial Relationships

In the context of the hard-headed, market-driven business world the concept of trust may seem incongruous. The tendency is to demand a rational, calculated or calculable basis for all activities and decisions. Trust does not readily appear to compute in a commercial world. On the other hand, the emergence of electronic commerce has emphasized that there is an element of trust in all commercial relationships.

In the governance of such commercial contracts, this is supported in English law by the concept of 'freedom to contract'. Thus parties are free to negotiate and determine the basis of their commercial agreements subject only to necessary public policy constraints (Atiyah, 1983; Reiter, 1981). In normal circumstances, the law will not seek to intervene where the agreement between the parties is clear, even if apparently unfair or unjust in retrospect*. They will intervene, however, where the parties are deemed to have gone too far; for instance liquidated damages provisions may be judged an inequitable penalty if considered to constitute an unconscionable amount, even though the parties had agreed to their inclusion. It is in such cases where issues of public policy appear to inform and influence the decisions upheld.

Empirical evidence suggests, however, that parties to commercial contracts are reluctant to make use of legal sanctions in the governance of their business transactions (Beale & Dugdale, 1975). Whilst in certain industries this might not be considered surprising, the findings are of interest when reflecting on the concept of trust in commercial relationships. Williamson offers an even stronger basis for consideration of these issues when he argues that 'Transaction Cost Economics holds that the principal ramification of bounded rationality for the study of economic organization is *that all complex contracts are unavoidably incomplete*' (2000, p8, stress in original).

Any attempt to draft a contract has to take account of the impossibility of covering all eventualities. As such, contracted parties have in the past naturally relied on (implicit) *understandings* in order to compensate for the *deficiencies* of written agreements. This may have been more readily accepted in the distant past; the formalization of contracts increasing in line with the bureaucratization of business. For example, the contractual arrangements for the construction of one of the most conspicuous public buildings of the nineteenth century, the Houses of Parliament, were not consistently hard and fast. The project was carried out on the basis of a series of large contracts. Although these were fairly detailed in terms of costings, penalty clauses and the required schedule of work, they were also open to renegotiation between government and contractors, with the architect Charles Barry acting as intermediary (see Kingsford, 1973, pp. 43-50).

Research into contractual relationships in the manufacturing industry concluded that business people often fail to plan exchange relationships completely and seldom use legal sanctions to adjust these relationships or to settle disputes (Macaulay, 1963 cited in Beale & Dugdale 1975, pp. 45-48). In a study of engineering manufacturers, similar conclusions were reached. In particular, the view emerged that

* See for instance *Davis Contractors Limited v Fareham Urban District Council (1956) AC 696*; *Trollope and Colls Limited v North West Metropolitan Regional Hospital Board (1973) 9 BLR 60*.

businessmen often prefer to rely on 'a man's word' in a brief letter, a handshake or 'common honesty and decency' even where the transaction involves exposure to serious risks....It is likely that businessmen pay more attention to describing the performances in an exchange than to planning for contingencies or defective performances or to obtaining legal enforceability of their contracts (Beale & Dugdale, 1975, pp. 45).

This bears out the view that the concept of trust is embodied in many aspects of the most commercial of relationships. Previously this might have been linked to the importance of some key feature of the relationship being founded on face-to-face discussion, but the advent of electronic commerce, particularly business to business [B2B], forces the concept of trust to the fore. This is complemented by the internationalization – or globalization – of business, since recourse to law and contractual arbitration are not always on the agenda in some contexts. All of these forces together highlight the increasing significance of trust in business relationships. Its role and value in a commercial context warrants further consideration.

2. The Role and Value of Trust in Business

The globalization of market economies, facilitated by developments in information and communications technology, has led to a shift towards collaboration and partnership as the models for commercial success. The knowledge economy and the strategic importance of information-based organizations further demand a more trust-based approach to innovation and competitiveness (Maclean, 1994; Gold, 1994). This is exemplified particularly by Keen et al (1999), and various papers by Snowden (2000).

This co-operative approach to business relationships features strongly in the trend towards the use of partnering approaches, supply chain management or the formation of strategic alliances; all key features of B2B electronic commerce. Such mechanisms for increasing business effectiveness have become significant internationally in a number of key industry sectors such as manufacturing and IT. The construction industry is something of a forerunner in this regard as is exemplified by Latham in his 1994 report. He recommended that there should be 'a specific duty for all parties to deal fairly with each other and with their subcontractors, specialists and suppliers, in an atmosphere of mutual cooperation' (Latham, 1994, p37).

These developments all take place against the context of the growing realization and explicit recognition of the necessity for mutual trust and co-operation for enhancing commercial competitiveness and advantage. The resilience and reliability of the technology has led to the realization that effective operation in the business environment requires a shift of emphasis towards more process-centred, people-centred, inclusive practices. It is argued that competition in its simplest sense needs to be replaced progressively or at least tempered by co-operation and collaboration. Collective competitiveness is enhanced through exchange and sharing (Nalebuff & Brandenburger, 1996; Dixon, 2000).

These new economy business practices are advocated and evidenced in recent studies of both the construction industry and the e-business sector. In construction, the need to move away from the adversarial, conflict-based environment towards greater incidence of trust, sharing of common goals and adoption of partnering approaches has been recognized (Latham, 1994; RCF, 1995; ECI, 1997; CIB, 1997). Equally, research into the use of E-Business solutions has concluded that cost-effectiveness and profitability can be improved particularly where (inter alia) the following principles are considered:

- co-operation with staff, suppliers and users are likely to be key features of successful e-business applications
- organizational behaviour is as important as IT systems when implementing e-business solutions
- all business areas can benefit from e-business, with supply chain management and e-personnel solutions in many cases being more successful than selling on-line
- managers need to develop skills in leadership and relationship building
- managers need to adopt new working practices and be less detached from their subordinates (Swords, 2000).

Those organizations that have been less successful 'have relied on old forms of competitive positioning such as the ability to drive costs through large market share or create barriers to entry through branding the control of distribution channels' (Swords, p4). New strategic opportunities have been created through more collaborative 'win-win' solutions.

This transformation to collaborative business models both in construction, e-business and more generally, has been found to require a change of culture, the adoption of new working practices and an ability to respond more quickly to change and the needs of customers or clients. The role and value of trust therefore is in facilitating this new regime both within and between organizations and in the marketplace in general. In the digital economy, the incidence of trust may benefit the establishment and sustainability of B2B relationships. Conversely, the application of IT-based solutions may facilitate the adoption of modern business practices, for example through the enhancement of knowledge sharing or more effective exploitation of competitive

advantage. This is exemplified in the European Commission's statements on technology transfer and innovation (see EC, 2001; Day, 1993; Barlow & Jashapara, 1998).

3. The Concept of Trust in the Digital Economy

Keen et al talk of the 'trust economy', and the subtitle of their book is 'Trust by Design' (1999). They are, however, at pains to point out that in the E-Commerce context some form of assurance is of increased importance. Indeed they state that technology is no longer the key factor since it is so widely available and readily affordable; but that '[T]rust is now the currency and differentiator' (p xvi). All the more so as the selection of suppliers and the transaction process itself are disembodied and disintermediated. An accompanying aspect of this development is that there is a move from trade and competition in terms of product, to one based on process, and now increasingly one based on business relationship. This means that trust is not simply something that is assumed by both parties to a single, discrete transaction; but an aspect of a potentially enduring relationship. Hence, the increased emphasis placed on trust in the design of an electronic commerce relationship and an increased focus on issues around the concept of Customer Relationship Management (CRM) by many companies.

There is a need therefore to consider the basis of trust and co-operation in E-Commerce models and to examine how these might be promoted. The term itself is troublesome and warrants further definition. Keen et al consider the term extensively, and focus in particular on reliability rather than honesty and sincerity (p5). By their own admission they aver that 'trust' is a complex and multi-faceted term that 'seems to have developed from the simple concept (sic) that "I won't steal from you if you don't steal from me" (an interesting concept, especially in modern business ethics)' (Keen et al, 1999, p2).

This is, however, an insufficient basis since it focuses on trust at the level of an individual, whereas the term has to have resonance through organizational structures and business processes, which then exercise some form of constraint on personal behaviour and relationships. Moreover, Keen et al, like many others writing about the development of E-Commerce, present the view that doing business in this new context necessitates a different form of relationship between the parties. We would question this stance, and instead suggest that although some aspects may be specific to E-Commerce, these new forms of transaction simply expose aspects that are common to most other forms. We would also maintain that some of the current discussions of 'trust' need to draw on other, more generic and equally appropriate terms such as collaboration, co-operation, confidence, partnership. For example many statements concerning 'trust' in business relationships might be replaced by various synonyms without loss of meaning – perhaps even with an enhanced result.

The use of the term 'trust' may therefore be deceptive, but this is not to argue that examining the idea of trust in commercial relationships is inappropriate. On the contrary, the impact of E-Commerce exposes a range of issues that previously had been ignored, and the bases and prerequisites for exchange are central ones. It is even more critical when the exchange relationship is not immediate, and still more so when it does not centre on a physical item. Thus, there are particular facets of trust that emerge in the context of electronic markets and on-line transactions that are different from more traditional approaches. The need for security and reliability of IT systems to protect confidentiality between both B2B (such as new products or research) and customer to business [C2B] relationships (such as personal information and credit card details) are significant examples.

Luhmann in his work on trust in the 1980s argued that 'trust has to be achieved within a familiar world, and changes may occur in the familiar features of the world which will have an impact on the possibility of developing trust in human relations' (1988, p95). At the time this was written, it would have been interpreted in terms of familiarity being a basis for trust, and conversely any change would be seen as a source of instability and insecurity. The growth of E-Commerce has certainly dismantled the term, but in a sense the renewed interest in the concept leads to a contrary interpretation of Luhmann's point: The changes have led to an enhanced basis for understanding the term, and provide new possibilities.

In some respects, the concept of trust mirrors similar developments in the USA and elsewhere around the concept of 'good faith' in commercial dealings. The stated purpose of good faith requirements in commercial dealings is to secure faithfulness to the agreed common purpose, to achieve consistency with the justified expectations of the other party, and to ensure compliance with community standards of decency, fairness or reasonableness.*

This focus on the business relationship, in terms of facilitation and expectations provides a useful context for trust in E-Commerce environments. A recent study by Cheskin (2001) concludes that trust is a feature of E-Commerce relationships which deepens over time. Consequently, where the relationship has matured or developed over time, parties may 'be willing to participate in more informal transactions', because of the confidence and trust that has been built up. Equally, where only extrinsic forms of trust are apparent, such as apparent professionalism, then parties 'may engage only in formal, written contracts' with each other. This aspect of relationships enduring over time is a critical one, and should be borne in mind whenever the literature

* *Restatement of Contracts 2d, s. 205, Comment a (1979) United States.*

on trust veers to include classic statements developed from the prisoner's dilemma, which in its standard formulations takes no account of this dimension.*

In the Information Systems world this concept is particularly important when studying knowledge management and what Nonaka and Takeuchi have called 'the knowledge creating company' (1995). Here the principle of trust centres on people with various forms of expert knowledge and experience being prepared to share this with colleagues. The basis is one of partnership rather than exchange, and there is an enduring aspect to the relationship. Although US-centred knowledge management texts offer something along similar lines, there is a noticeable cultural divide between Nonaka and Takeuchi's *collective process* orientation and Davenport and Prusak's (1998) *individuated, technical-rational one*. (See Meehan, 1999 for a similar point about this distinction.) Keen et al are somewhat equivocal with regard to this distinction; they are at pains to describe the move from product and service to relationship, but this enduring relationship is still described in terms of a series of one-off, circumscribed transactions. Again the division between East and West seems to be that between a collectivist-process view and an individuated-calculated one.

We conclude that the concept of trust in E-Commerce relationships is similar, but not identical, to that in other industries or business sectors. Indeed, it may be argued that what is being reflected here is the application of general economic models of contracting behaviour to E-Commerce situations. Consequently studies of trust in E-Commerce have to draw on such resources in explicating the concept and in seeking to develop specific practices and policies. Just as business has had to struggle to understand the real potential and impact of information and communications technology [ICT], so now those concerned with the potential offered by the technology must grapple with the nature and constraints of business and the market. Some key general models of business relationships will be considered further from a trust perspective to examine their relevance for the promotion of trust in E-Commerce.

4. Business Relationship Models and Trust Promotion

The way in which commercial relationships are governed may be evaluated from an economic perspective. The purpose of such a relationship primarily is an economic one, to facilitate transactions between organizations and to provide a framework for the conduct of the exchange (see Macaulay, 1963; Goldberg, 1976). Economic models of contracting behaviour may be classified according to the nature of the exchange or transaction. In a micro-economic model, the focus is placed on individual exchange or discrete transactions, where theoretically, no duties exist between the parties prior to contract formation (Goldberg 1976, pp. 49, 51). However, a basic criticism is that exchange takes place within a framework of rights and duties established by law and social value. This leads to a need for a richer classification as suggested by Macneil (1978, 1983) that takes account of the nature and duration of the relationship between the parties. Implicitly, such a classification evaluates the level of trust promotion on a spectrum from the pure discrete transaction - with limited features of trust - to more enduring interdependent relationships - with trust being a strong characteristic - (Eisenberg 1995, Macneil 1983).

Essentially such classifications start from the distinction between relationships oriented around discrete, one-off transactions and those of a more enduring nature such as service agreements. In the light of the emergence of E-Commerce, and concepts clustered around Customer Relationship Management, this spectrum now extends beyond service provision to a more enduring and multi-faceted idea of a developing and sustained relationship between the parties. Furthermore the nature of the parties themselves is important, distinguishing between B2B and B2C relationships.

We offer a spectrum of contracting models ranging from a pure classical market approach (with emphasis on discrete transactions or exchanges such as those envisaged in the Cheskin study), to one which emphasizes the relational aspects of the exchange. This echoes the shift from product to process and then to relation outlined by Keen et al. This results in three broad categories: Classical Contracting, Neo-Classical Contracting and Relational Contracting (derived from Williamson, 1981). This fits well with the general economic concepts of markets, networks and hierarchies (Colledge, 1992); with hierarchy here seen in terms of 'alliance' or 'confederation', without the connotations of 'bureaucracy' and command-and-control structure. This spectrum of contracting approaches seeks to reflect efficient models for the governance of commercial transactions (see Figure 1).†

* This is not to imply that the literature on the Prisoner's Dilemma is of only marginal relevance to the current issue, but many papers on trust that focus on this classic paradox fail to encompass time and duration.

† Williamson identifies these in terms of 'alternative modes of governance—markets, firms, bureaus, etc.', and goes on to argue that the transaction cost economic approach then poses three crucial questions - 'It asks (1) what are the principal attributes with respect to which governance structures differ, (2) how is each generic mode of organization (market, hybrid, firm, bureau, etc.) defined in terms of these attributes and (3) what resulting strengths and weaknesses accrue to each generic mode' (Williamson 2000).

ECONOMIC MODEL	GOVERNANCE STRUCTURE	FEATURES
Markets	Classical Contracting	<ul style="list-style-type: none"> • reliance on the market; discrete transactions • adherence to legal frameworks • use of legal remedies • standardized contract planning
Networks	Neo-classical Contracting	<ul style="list-style-type: none"> • longer term relationship begins to assume more importance • development of relational tendencies • contract provisions cater for flexibility
Hierarchies	Relational Contracting	<ul style="list-style-type: none"> • the commercial relationship assumes equal or greater importance compared to the legal agreement • significant sharing of benefits and burdens • greater interdependence • bilateral governance (e.g. Strategic Alliance, Partnering) • unified governance (e.g. Joint Ventures, Mergers)*

Figure 1: Economic models and governance structures

From a trust perspective, this model predicates an increase in the level of trust between contracting parties the further along the spectrum from a discrete transaction towards a maturing relationship. In practice, ‘most actual exchanges are at least partially relational’ in that they involve ‘deeply embedded interconnected relations’ (Macneil, 1983, p345). The further along the spectrum, the stronger these connections become, with increasingly influential elements of co-operation and dependency. These relational elements include for example:

- Primary personal relations
- Multiple participants
- Utility that is difficult to measure or specify
- Extended periods of commencement, duration and termination
- Planning for change
- Future co-operation essential to the relation (Macneil, 1983)

This significant investment in the relationship by all parties results in joint incentives for sustaining it.

Whilst the nature and duration of the relationship are considered to be key determining features, a deeper analysis of critical dimensions, such as frequency and investment idiosyncrasy, necessitate a more refined classification of business contracting models (Williamson, 1981). These will now be considered in the context of E-Commerce relationships.

5. Trust in E-Commerce Relationships

It has been established by Swords that key elements of a successful E- Business application are co-operation and experimentation both within the organization by internal staff and beyond it with external suppliers and users (2000, p23). It might be argued that the very nature of IT-based applications in themselves facilitate co-operation and make E-Commerce models more receptive to the adoption of relational contracting approaches. But the technology that enables E-Commerce does not guarantee that experimentation and co-operation will occur. Although it might be pointed out that the growth in internet-based commerce affords a far greater potential for buyers to investigate alternative sources for good and services; with low switching costs. Yet the debates around the concept of ‘trust’ illustrate the determining role of organizational structures and cultures in fostering – or stifling – new ways of doing business and relating to customers, clients and others in the value chain. Hence the widening interest in the whole topic of ‘governance’ (Williamson’s work and its derivatives are of particular importance here – see Williamson, 2000).

A key component then of these governance structures is their role in the promotion of trust; particularly the ways in which trust is rewarded and reinforced. So as switching costs are reduced, there is a greater focus on customer retention, CRM and the like. The earlier analysis of contracting and governance models illustrated the way in which the potential for trust increases in relational business models. Analysis of the nature of the transaction from a frequency and investment type perspective (e.g. Williamson, 1981), produces a more accurate

* The distinction between ‘bilateral’ and ‘unified’ structures is made by Williamson (1981, p52) – ‘Two types of transaction-specific governance structures...can be distinguished: bilateral structures, where the autonomy of the parties is maintained; and unified structures, where the transaction is removed from the market and organised within the firm, subject to an authority relation (vertical integration)’.

representation of governance structures than that limited to 'pure' economic models of transactions. This is reflected in the findings of the Cheskin study. The summary of this is shown diagrammatically in Figure 2 (derived from Williamson, 1981 and Colledge, 1992).

Investment Type	Frequency	
	Occasional	Recurrent
Non-specific	<ul style="list-style-type: none"> market governance (classical contracting) less reliance on previous experience reputation governed by market 	<ul style="list-style-type: none"> market governance (classical contracting) greater reliance on past experience and relationship that has developed reputation through direct experience
Mixed	<ul style="list-style-type: none"> stronger incentive to see contract through to completion: not so easy to obtain a replacement cost of transaction-specific governance structure is prohibitive but market governance provides no incentive to sustain relationship mechanisms to resolve future disputes are introduced e.g. third party assistance trilateral governance (neo-classical contracting) 	<ul style="list-style-type: none"> greater incentive to sustain the relationship primary reliance on market is unreliable the cost of a specialized governance structure can be recovered bilateral structure where autonomy of the parties is maintained (relational contracting)
Idiosyncratic	<ul style="list-style-type: none"> as mixed occasional there is a transition to a unified structure as the transaction becomes more idiosyncratic 	<ul style="list-style-type: none"> as mixed recurrent but bilateral structure is replaced with unified structure (relational contracting)

Figure 2: Features of governance structures

The model proposed categorizes the subject of the exchange (the investment) into three types:

- non-specific - a standard product or service
- mixed - a non-standard product or service but not highly specialized
- idiosyncratic – a highly specialized product or service

These types of investment are each considered against the frequency of the relationship either being occasional or recurrent.

What this illustrates is that for occasional non-specific services, (e.g. the purchase of a book or groceries on-line), the transaction is likely to be governed by the classical contracting model. The transaction is relatively isolated and the incidence of trust is based particularly on the ability to pay for and the right to receive the goods. Whilst the trust is two way, it is more likely to be based on extrinsic forms such as the reputation of the service provider. It is suggested in the Cheskin study that 'internet trust is still relatively shallow...because time is the key to deepening trust' and the continuation of the relationship. This also explains the ability of well-established names to break into the e-commerce market and catch up with, or overhaul initially successful entrants. Under this heading, extrinsic forms of trust are the main determinants of the relationship. So the control and security of personal information, credit card details and the assurance that privacy will be maintained are critical to the success of the relationship. Equally, for the service provider, the trust is primarily concerned with payment. In each case, reliable technology and fulfillment of delivery promises will be critical for future business and a continuing relationship.

As confidence grows, the relationship may become recurrent, based on the quality of service and experience of successful transactions. To promote trust between business and customer, on-line accounts might be created, incentives offered, or valued clients might be given the opportunity to share information. For example, Tesco Direct enable customers to save their shopping lists and from this enable shoppers to analyze their pattern of past purchases. Other approaches include registration as a frequent user that may provide further incentives such as special offers or access to information. What is being fostered here is customer loyalty based on trust

mechanisms (Varian, 1999). Amazon for example, enable customers to place book reviews on their site and facilitate discussion forums on related topics.

As the investment type becomes more specialized, the nature of the relationship changes. Greater levels of trust are required to sustain the relationship. Examples include BOC or Ford and their approaches to the supply chain. (The BOC case study is described in Swords, 2000.) Often there are either multiple participants involved (e.g. as in supply chain management) and/or there is a continuous or frequent relationship between the parties over a sustained period (i.e. a long-term relationship). Key to the success of these types of E-Commerce relationship are the processes that foster team-working and sharing of information. (Again the interconnections between E-Commerce and Knowledge Management should be noted.) A feature of this would include an emphasis on preferred partners, sharing of common network and IT systems, shared investment in staff development and training, transparency in relation to pricing policies and open book approaches.

A key element in these types of relationships is transparency and equitable treatment. Thus honesty and fair dealing become important features to sustain the relationship. There is trust that the relationship will not be abused by either party, whether because of a stronger bargaining position or through a desire to increase strategic advantage. For example, In the UK construction industry, the use of partnering of the supply chain was, in some instances, the subject of criticism by sub-contractors who were concerned that the relationship was being used to drive down costs rather than achieve mutual benefits.

This form of relationship should instead seek to maximize mutual advantage through creative use of the partnership. For example, closer co-operation might facilitate a faster response to the marketplace, reduce unnecessary costs or enable greater specialization or customer focus. Through joint performance monitoring and review, continuous improvements can be made. Often this form of relationship demands earlier involvement between the parties, for example in the design phase of a construction project.

Overall, as the E-Commerce relationship shifts towards an enduring and persisting relational model, there is a change needed in the culture of the organization. The emphasis on co-operative dealing and collaboration demands teamwork, and recognition by individuals of the ramifications of this different approach. In the UK construction industry, this has not been straightforward. However, where project partnering has been adopted, significant investment has been made in developing the inter-organizational team, through joint away days, meetings, setting of shared project objectives, and in some cases, common uniforms and transport logos. In E-Commerce relationships a similar commitment is needed, with leadership from the top being critical to success. As Smiths Medical illustrates,

co-operation was not part of the previous culture...and it has required significant work to achieve. It requires co-operation at both the strategic and operational levels in order to present a unified approach on the web...It has been only 25% an e Business issue and 75% an organizational change issue (case study quoted in Swords, 2000, p15)

6. Conclusions

In summary we can state that trust is an important consideration in the development and fostering of E-Commerce relationships in the context of the knowledge-based economy. This necessitates a change in organizational culture towards more inclusive, people-centred practices. The promotion of trust, through appropriate relational contracting models that foster collaboration and co-operation, will facilitate the achievement of strategic E-Business objectives. The way in which this is fostered will be dependent on the nature and frequency of the relationship. General models of contracting behaviour provide a valuable framework for the analysis of trust in different circumstances. A spectrum of models helps highlight the distinction between the relatively discrete transaction (where trust is a limited feature) to one in which trust assumes greater importance as the basis of the business relationship. By deriving this model from the more generic economic literature, it has been shown that trust is not solely a feature of E-Commerce. Approaches adopted in other commercial sectors can inform discussions and analyses of key features of the digital economy. Equally, the use of E-Commerce information technology solutions can in themselves facilitate co-operative working through sharing of knowledge and information.

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