Beyond Privacy: The Ethics of Customer Information Systems

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Abstract

The rise of an ostensibly customer-centred corporate culture in the 1980s recognised the importance of "knowing the customer". As a result, customer information systems and associated practices of marketing, customer segmentation, and customer accounting have become significant elements in corporate customer-focus strategies. This paper discusses a range of ethical considerations that flow from the use of customer information systems and critically examines these systems in their organisational and social context. It is well-recognised that customer information systems give rise to concerns of privacy, but this paper raises perhaps more important ethical issues that relate to organisational transformation and significant links to issues of access, equity, alienation, and social exclusion.

Keywords: Databases, Customer Focus, Accounting, Marketing, Social Exclusion

… one particularly useful way to understand social change today is to examine how power is used to shape the production, distribution, and use of information as a commodity (Mosco, 1988: 3).

Introduction

In the Information Age the effective acquisition, development, and use of "knowledge assets" is said to be the key to securing competitive advantage (e.g. Boisot, 1998; Reich, 1991), and the application of information technologies is of increasing organisational significance. Customer information systems and related database storage and processing capacities are hailed as an important new competitive weapon (e.g. Grime, 2001/2; Hagel & Rayport, 1997; Jenkinson, 1995).

The effects of any social technology are always determined by its uses, roles, intersection with other processes and practices, and resistances that arise as a consequence of its use. The importance placed upon the acquisition and use of customer information is a significant aspect of the so-called 'customer revolution' that was reflected in many organisations during the 1980s. "Getting to know the customer" became a catchcry, and advanced database storage and processing capacities were applied in the collection and use of unprecedented amounts of personal data about customers. The use of customer information is said to allow corporations to get closer to their customers, to the point where the relationship between an organisation and its customers has been described as one of "intimacy" (Treacy & Wiersema, 1993).

This paper examines the contemporary use of customer information systems in an organisational and social context. Technologies and practices associated with customer information systems—notably, customer accounting and marketing—are incorporated into the analysis in order to gain a holistic understanding of the processes involved and the consequences thereof. The organisation of the paper is as follows. The second section (next) introduces the rise of a corporate culture that is ostensibly centred on the needs of the customer. In the third section, the importance of customer information to the customer-centred strategy is examined, and the associated practices of marketing, customer segmentation, and customer accounting are introduced, with

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examples. The fourth section outlines the main ethical and social considerations pertaining to the interrelated use of customer information systems, accounting, and marketing. These include privacy concerns and, more significantly, organisational transformation which takes in a reconstruction of the customer and a dramatically changed organisational view of the customer. The fifth section sets out to expand on the conventional consideration of privacy issues by examining how the use of customer information systems and associated practices has a direct impact on issues of access, equity, alienation and social exclusion. The paper concludes in the final section by reflecting on the need for the information systems profession to consider its domain in context, and to consciously strive for equitable social outcomes, in addition to contributing via its technical expertise.

The Rise (and Rise) of Customer Culture

The 1980s 'revolution' in customer thinking was not an entirely new development. In many ways it amounted to a *rediscovery* of the importance of the customer; something that had been known for decades, but which businesses had lost sight of (Peters & Waterman, 1982). Indeed, prominent writers in management and related disciplines had for decades been urging business to recognise the central importance of "the customer" (e.g. Drucker, 1955, 1964, 1973; Levitt, 1960, 1962; McKitterick, 1958). In the face of the economic success of competitor nations such as Japan in the 1970s and early 1980s, corporate management in the West (particularly the United States of America) was seen to have lost focus on the core elements of an organisation's competitive position (Webster, 1988). The rhetoric of 'customer service' had been in sharp contrast with the reality of what organisations delivered, which included a propensity to treat customers as statistics rather than people (Albrecht, 1992; Band, 1991).

The publication of Peters and Waterman's *In Search of Excellence* (1982) was a key point in reawakening interest in the importance of truly getting "close to the customer", and the 1980s was characterised as the "decade of customer consciousness" (Albrecht, 1992: 2). The customer was again 'king'. The voices of Drucker, Levitt, McKitterick and others from the 1950s seemed to echo at the end of the century. Today, customer focus is presented as being vital for the success of any commercial organisation. Economic power is said to have shifted from producers and suppliers to consumers, who are said to now dictate product quality, appropriate service levels, and reasonable prices (Naumann, 1995: iii). It is said that, as a competitive necessity, customer value must be maximised and grown, with the organisation becoming a "high-value-*delivering* enterprise" (Band, 1991: v, emphasis added).

The Importance of Customer Information: "Knowing" the Customer and Interacting with the Customer

The Marketing Concept

Decades ago, McKitterick (1958) wrote about the market-oriented firm as one in which business policy was formulated principally on the basis of market considerations. Whilst a production-oriented firm starts from its production processes and works forward to the consumer, a marketing-oriented firm is said to start with the consumer and work back to its production processes (and plant and equipment) (Bridges, 1981: 109). A market orientation requires the generation of market intelligence relating to the current and future needs of customers and an ability to satisfy these identified needs. In the market oriented firm, information about customer needs is integrated and disseminated across the organisation, and the organisation's practical response (in terms of design and execution) is coordinated across the organisation (Gray, Matear, Boshoff, & Matheson, 1998: 885, citing Deng and Dart 1994). Important elements includes support for customer-oriented values from top management, and integration of market and customer focus with organisational strategic planning (Webster, 1988).

The *marketing concept* is said to be a business philosophy that pursues long-term profitability by focusing the activities of the organisation toward satisfying the needs of customers (Gray et al., 1998; Houston,

1986; Morgan & Strong, 1998; Webster, 1988). Rediscovered as part of the rise in customer culture in the 1980's (Webster, 1988), the marketing concept was developed in the 1950s and was the result of focusing business thinking on what would be better for the customer rather than merely cheaper to produce—an outcome described by McKitterick as a "triumph of innovation over productive capacity" (1958: 74).

Customer focus was initially operationalised on the basis of a range of non-financial quantitative and qualitative indicators of customer satisfaction and quality, usually based on customer surveys, focus groups, or more sophisticated tools and techniques of customer value analysis (e.g. Christopher, Payne, & Ballantyne, 1993; Gale, 1994). These ideas centred on the notion that "the customer is the business" (Drucker, 1955, 1964). The focus was on meeting the needs of the customer at a competitive price, by developing a sound understanding of customer needs and then delivering (perceived) value to customers.

Finding Out about the Customer

Customer focus would seem to require the organisation to know about the customer in order to be in a position to meet customer needs, with customer satisfaction the ultimate goal (see Bell & Emory, 1971). The growing power of computer databases for use in the accumulation, storage, manipulation and use of customer data has faciliated contemporary strategies of customer focus that rely on the collection, storage, and use of large amounts of personal customer data. The technologically-mediated collection of personal information is now routine with the wide use of credit cards, cable and pay television systems, electronic banking, and electronic commerce. As one writer puts it: "How much money you have, what you like to buy, your views on capital punishment, your preference for president or for laundry detergent - the new technology is used to draw detailed marketing profiles of individual households …" (Mosco, 1988: 6).

The use of customer data allows organisations to not only "know" their customers, but to tailor their marketing efforts to individual customers, through the increased "addressability" enabled by customer databases (e.g. Blattberg & Deighton, 1991; Kara & Kaynak, 1997). Corporations can construct extensive databases from their own transaction data representing the firm's interactions with its customers, but data from a variety of other public and private sources can also be utilised. For instance, lifestyle surveys, focus groups, customer surveys, market research, and geographical socioeconomic data included in published official government census statistics can be used to categorise people (e.g. Andon, Baxter, & Bradley, 2001; Blattberg, 1987; Hughes & Wang, 1995; Sturdy & Morgan, 1993).

The corporate use of customer databases has become so significant that "database marketing" has become an important subdiscipline in its own right (e.g. see Hughes & Wang, 1995; Jenkinson, 1995) and extensive and advanced information systems have become central to the marketing function (Talvinen, 1995). Consequently, for the information technology profession, provision of "data warehousing" has become routine (Cooper, Watson, Wixom, & Goodhue, 2000). Quality issues within data warehouses are recognised as a significant contemporary issue for information technology professionals (Shanks & Darke, 1998).

Customer Segmentation

The management and use of customer information is associated with many of the key contemporary themes in marketing research, such as market segmentation, relationship marketing, market orientation and the marketing concept (Wensley, 1995). With massive amounts of customer data available, firms strategically deal with the data by dividing their customers into identifiable groups and tailoring product and service offerings to each segment or group. This process of customer *segmentation* was an important feature of Porter's pioneering work on business strategy and competitive advantage (e.g. Porter, 1985), and has become a taken-for-granted component of marketing management (e.g. see Wensley, 1995). In the 1990s it was suggested that mass markets were "shattered into fragments and splinter groups", with each segment of the market having different expectations and needs (Naumann, 1995: 15).

At a broad level, markets may be segmented on the basis of products, product lines, geographic districts, and distribution channels. Segmentation is also possible on the basis of demographic, socioeconomic and psychographic factors (the latter based on lifestyle, attitude, and personality), customer benefit, usage, loyalty, and occasion (of use) (Christopher et al., 1993: 47–51). Behavioural segmentation based on the actual purchase behaviour of customers can also be used to clarify categories in relation to the dimensions of recency of last purchase, frequency of purchases, types of purchases, and amount spent, although such factors are extremely changeable (e.g. Blattberg, 1987; Gordon, 1998: 95–96; Hughes & Wang, 1995). As Reich (1991: 277) has noted, categorisation of people is increasingly carried out on the basis of socio-economic census data, sorted and aggregated by postcode areas. The use of geographic information systems (GIS) in the processes of segmentation is becoming more prevalent (Pickles, 1995).

As part of this trend, customer relationship management (CRM) has become a new focus area for the information systems profession, which is typically involved in planning, building and maintaining customer databases, and developing CRM software. These databases and software are then applied and used in other functional areas such as sales and marketing and accounting. CRM software is heavily promoted for use in the management of the relationship between an organisation and its customers, such that identifiable types of customers can be made more profitable (e.g. Grant & Schlesinger, 1995; Grime, 2001/2).

Marketing professionals seem to be particularly enthusiastic adopters of segmentation techniques, with CRM applications initially developed for use in database marketing, direct marketing, catalogue marketing being disseminated to marketing more generally. Segmentation and associated CRM strategies can be used in relation to customer targeting and retention strategies, media/channel selection for advertising and promotion, product features, pricing, discounting, customer service and support (e.g. Dwyer, 1989; Hughes & Wang, 1995; Jackson, 1992; Keane & Wang, 1995).

The central focus of CRM is not on discovering the needs of individual customers and delivering value to them, consistent with the traditional notion of customer focus (exemplified by Drucker, 1955; McKitterick, 1958), but on identifying, attracting, and retaining the *most valuable* customers to the firm. CRM is centrally about maximising profitability, not maximising customer service and satisfaction *per se*. A key notion in emerging CRM, then, is the segmentation of customers based on their perceived *financial value* to the firm. Segments are organised hierarchically and, based on their profitability (or potential), customer interactions are tailored accordingly (see also Reichheld & Sasser, 1990; Treacy & Wiersema, 1993).

Segmentation Based on the Financial Valuation of Customers

The increased focus on enhancing business profitability, and, as part of this, of enhancing the profitability of customers (individually or at a group level) has led to the development of accounting techniques to calculate the profitability of customers (or customer segments). The ultimate aim of any exercise in market or customer segmentation seems to be to analyse costs and profitability on the basis of segments.

Customer accounting techniques

Two distinct techniques for the valuation of customers have emerged in recent years. The first, customer profitability analysis (CPA), calculates a customer's contribution to profit as the difference between the revenue earned and the costs associated with that customer. On the cost side it uses activity-based costing techniques to assign a total cost of acquiring and servicing a customer to date. Costs assigned include discounts and commissions, marketing and sales support, packaging and documentation, inventory holding costs, delivery, technical and administrative support, quality control, credit terms, accounts receivable days, financing, collection costs, order entry processing, handling customer inquiries, and customer service (Bellis-Jones, 1989; Foster, Gupta, & Sjoblom, 1996; Petty & Goodman, 1996a, 1996b). The second technique, customer lifetime value (CLV), goes further than CPA by projecting costs and revenues into

the future and using discounted cash flow analysis to derive a net present value for a customer or group of customers.

Either CPA or CLV can be used at the individual customer level or at a market segment level. Segment valuation is perhaps more attractive due to its potentially easier application and lower costs of data accumulation and calculation, although developments in information technology make aggregation and manipulation of data at the individual customer level a feasible option (e.g. see Gordon, 1998). Nevertheless, customer accounting seems to inevitably involve the grouping of customers into segments, which may *themselves* be based on bands of profitability (or customer values) (e.g. see Mulhern, 1999), such that the segmentation comes after the calculation. This process is database-driven, usually relying on a large amount of historical transactional and other data being input into a CPA or CLV calculation, the result of which is used to group customers into bands of profitability. Price, service, and other actions towards the customer then proceed on the basis of the assigned segment membership, rather than their individual customer value.

Calls for closer relations between the accounting and marketing functions in organisations draw on the increasing use of accounting information for planning, controlling, and analysing the firm's marketing activities (e.g. see Cunningham, 1992; Harrison, 1981). Advocates of the use of CPA or CLV have largely treated the procedures as merely a technical application of mundane accounting procedures. Worked examples reported in the literature invariably are based on relatively large spreadsheets, involving interlocking formulae and numerous estimations and calculations, or complex formulaic calculations. CLV numbers, for example, are the result of numerous estimations and other subjective quantifications and projections, including: future revenue receipts; future marketing expense; future response rates to marketing programs; future commissions (in both assumed first and later years); future administrative expenses; future fulfillment expenses such as data processing, data maintenance, billing and collection, customer service; future 'defection' or 'lapse' rates (customers going elsewhere); future interest rates and returns on equity (e.g. Hansotia & Wang, 1997).

The focus on the minutiae of technical procedures tends to abstract away from the social consequences of practice, yet in other domains it is recognised that calculative procedures have become particularly prominent as bases for action by organisations and authorities, facilitating the exercise of power. Emy (1993), however, suggests that the reality represented by numbers grows steadily more distant from life and working experience. Gorz (1988) also expresses concern about the abstraction away from lived experience, stating that "it 'colonizes', reifies and mutilates the very relational fabric on which social integration, education and individual socialization depend" (p. 107). Tinker (1985) shows that the outcome of accounting-based calculative rationality is often the marginalisation of the disadvantaged, minorities, and the powerless.

Notwithstanding the technical and social problems inherent in cost allocation and estimation, it is rare for advocacy of customer accounting techniques to be accompanied with concomitant cautions relating to their use, and it is unusual for the quality of the produced information to be questioned. In instances where questions about allocation and prediction are raised, the cautions seem designed only to serve the production of 'better' numbers, but not to preclude use of the techniques, as such (see, for example, Dwyer, 1989; Foster et al., 1996; Jackson, 1989; Jackson, 1992) (c.f. Mulhern, 1999).

Using Customer Information Systems in Sales and Marketing

As the foregoing analysis shows, "customer focus" is increasingly operationalised through a process of defining the customers to be focussed on, and excluding others. This is done by dividing the broad customer base into groups, calculating values for each group, and treating each group in ways contingent on their calculated financial values. Band (1991), for instance, endorses the practice of offering different levels of product and service quality to different segments and subsegments, based on their perceived profitability to the organisation. Naumann (1995: Ch 5) advocates a model of "value-based pricing" where price levels are differentiated between market segments based on the expectations and perceptions

of groups about benefits to them and prices they are prepared to pay for those benefits. Clark and Payne (in Payne, 1995) suggest that apart from discovering the different needs of customer groups, segmentation should be oriented towards discovering which groups are profitable so that marketing efforts can be directed towards them, and that little effort should be made to retain unprofitable customers.

Despite a rhetoric of "mass customisation" (e.g. Gilmore & Pine, 1997; Kara & Kaynak, 1997), the targeting of large markets or market segments and audiences, rather than individualised or small niches is still typical (Besser, 1995; Curtis, 1988). Much of the literature on the use of customer information systems and customer accounting draws case examples from practice in traditionally mass-market retail areas such as banking and insurance. Other traditionally mass-market retail areas examined include newspapers and magazines, rural petroleum distribution, utilities, grocery retail, clothing retail, pharmaceuticals, telecommunications, and solicitation of charitable donations.

The general discussion of direct, database, relationship, and catalogue marketing reflects a significant shift from mass marketing to target marketing (Turow, 1997: 4). In mass marketing, the aim is to market to people irrespective of their lifestyles, background, or patterns of activities, and the media used are generalised home-based media, such as free-to-air television and newspapers, or an outdoor, public medium. Target marketing, by contrast, involves the active pursuit of specific and identifiable segments of society, and often involves the exclusion of other social segments (Turow, 1997: 4, Ch 2) (see also Hughes & Wang, 1995, for example). Turow's work (1997) suggests that the trend towards target marketing is reflective of a divided, fractured, disconnected society, and the corporate desire to capitalise on these divisions, fractures and disconnections. The shift from mass market*ing* has not eclipsed the existence of mass market*s per se*. Major retail operators, including providers of vital services to the community such as financial service providers and insurers still ostensibly serve mass markets.

Banking and financial services

The literature suggests an increasing use of customer information systems as bases for customer segmentation and the offering of differential service levels in the provision of banking and financial services. With an intensive round of mergers in many countries, major financial services providers are now mega-corporations, occupying significant positions of power in their respective markets. Their activities touch on the lives of millions of people, and their "products" are typically required by citizens, in one way or another, in the course of their daily activities. In effect, all citizens—rich and poor, young and old, privileged and disadvantaged—*must* use banking and financial services to some degree.

The market power and reach of major financial services providers means that they have the means to amass large amounts of transaction and other personal data about their customers, and to supplement this with geodemographic, psychographic and other data from external sources. Cooper and Kaplan (1991: 470) state that banks routinely calculate the profitability of customers, using the information to retain and defend highly profitable segments and to transform unprofitable ones. Unprofitable segments are said to be transformed through actions on pricing, product features, operating improvements, technology introduction, and customer relationships. Customer relationships are also terminated on the basis of individual customer profitability calculations (see Kaplan's "Manufacturers Hanover Corporation" case in Cooper & Kaplan, 1991: 553–565; see also Hughes & Wang, 1995; Reichheld, 1996; Walther, Johansson, Dunleavy, & Hjelm, 1997: 95–96).

In the Australian banking case study reported by Andon *et al* (2001), the bank was said to be particularly "keen to retain the business of its valuable customers", seeking to deepen these relationships. The establishment of a data warehouse enabled the bank to calculate complex customer values at the segment or individual level. Where segments were used, they were characterised on the basis of "demographic variables and economic value". Customer profiles were initially established through questions asked of individual customers, but the bank "found it necessary to fortify its customer profiles in more surreptitious and less intrusive ways" using averages from census data related to the postcode of the customer's residential address. (Contextually, it should be noted that the retail banking market in Australia is particu-

larly concentrated and highly profitable, with only four major banks dominating the entire banking market. The 1990s "revolution" in banking in Australia saw branch numbers drop by over 1300 (Guilliatt, 1999).)

The use of extensive customer databases and the application of customer accounting procedures are attractive to financial services providers because while it is the case that many expenses are 'product driven', it is also the case that many expenses incurred for "service functions" are caused by demands from individual customers (or types of customers) rather than the products themselves. There are said to be large variations in the demands that different customers place on the organisation, even when using the same basic product (Cooper & Kaplan, 1991: 467). Relative costs of servicing the rich are imagined to be less than those for the poor, since "wealthy people may keep more money in their bank accounts and may write large cheques for their credit card bills … Less wealthy people keep less money in accounts but they still get statements, and while they write smaller cheques they may write as many" (Sharman, 1996: 21). The possibility that the wealthy customers are more exploitative of account structures, free transactions and other available benefits (with the ability to move money around, operate in overdraft, and otherwise take advantage of their own market position and market perceptions of them as "valuable")—and are therefore more exploitative of the banks—does not seem to come into consideration. Neither do equity considerations related to the fact that the wealthy are often charged lower account-keeping or transaction fees, even though it is they who are the segment of society who could most afford to pay the fees.

Overall, in banking and financial services, high-value, high income, highly profitable customers are likely to get better access, better financial deals, and a better overall service; low-value, low profitability, low income customers (who are often the customers most in need of the products or services offered, such as the poor, the sick, or the elderly) are likely to be offered inferior levels of service, charged higher fees and charges, or even excluded from access to some products or services.

Other product and service areas

The implications of discriminatory actions taken on the basis of customer information systems are no less significant in sectors such as health insurance, general insurance, telecommunications, utilities, and other service areas. In relation to health insurance, many citizens find it increasingly necessary to privately insure for health cover in the face of declining public provision of health services. For heal;th insurance providers, the target market is, of course, high-value customers, in general, have little actual need for the service offered. Longer-lived and healthy customers who continue to pay insurance premiums over a number of years would fit the ideal customer value profile in this regard. By contrast, there may be a financial disincentive to attract and maintain customers who are most in need of health services available. There is evidence that health insurers use customer databases and customer valuation techniques such as CPA and CLV in their customer targeting, retention, and service strategies (Andon, Baxter, & Bradley, 1998; Andon et al., 2001). An example of low-value customers seems to be those who suffer from depressive illnesses. There is also evidence that, in relation to applications for policy cover and claims for benefits, insurance companies actively discriminate against people who suffer from depression (Beyond Blue—The National Depression Initiative, 2001), which has the effect of discouraging sufferers from (a) disclosing their depression, and (b) seeking active treatment.

The effects of customer valuation also extend to the general insurance sector (e.g. see Andon et al., 2001; Jackson, 1989), as part of a more general move towards the "unpooling" of insurance risk (see Ericson, Barry, & Doyle, 2000). As Ericson puts it: "One of the ironies of insurance is that, while it is supposed to pool risks, in practice it tends to unpool them, breaking down the larger pool of potential insured in search of smaller, less risky pools, which are advantageous to some while excluding others ..." (Ericson et al., 2000: 534).

In addition, customer valuation is having significant impacts in other increasingly vital areas such as telecommunications and the provision of Internet access (Graham & Marvin, 1994; Lloyd, 2000; Pickering, 1999). Research shows that "culling" of low-value customers is becoming common in the telecommuni-

cations sector (Lloyd, 2000). Utilities such as gas and electricity companies also apply the same type of thinking in their customer strategies (Davidson, 2001; Graham & Marvin, 1994). For example, in the privatised Victorian electricity industry, evidence suggests that companies seek to allocate costs to the customers who are least able to afford them, or avoid them (Davidson, 2001).

In brief, in a number of mass-market product and service areas, many of which are traditionally regarded to be “public goods” (see Kaul, Grunberg, & Stern, 1999), the decisions and actions taken by corporations operating on the basis of their customer information systems and associated calculated customer values have an impact on access, prices, and service levels received by social segments.

Ethical and Social Considerations of Customer Information Systems

Key ethical issues in the information age, including the increased ubiquity of computerised databases, are often popularly summarised under the four headings “privacy, accuracy, property, access” (labelled with the acronym P-A-P-A) (see Mason, 1986; Mason, Mason, & Culnan, 1995):

1. Privacy—the ability of people to keep personal information about themselves private and confidential; how the widespread holding of personal information about people impacts on interpersonal relations of trust, autonomy, and dignity;
2. Accuracy—the quality and accuracy of data/information held in databases, and on which organisations act, assuming the data/information to be correct;
3. Property—information ownership and control—who owns personal information about an individual, and who has the right to use it, or control its use; and
4. Accessibility—access of members of society to the social store of information.

In regard to the use of computerised databases, the P-A-P-A model raises the issues of privacy (the customer’s right to privacy in regard to personal information), accuracy (the accuracy of information held about customers), property rights (who has ownership rights over personal information), and, accessibility (who has access to customer information). These issues have been extensively considered in the information systems literature, and the issue that seems to have attracted the most attention in relation to computerised databases is that of privacy.

Privacy Concerns and the Corporate Response

Privacy issues, particularly relating to the ubiquitous commercial use of customer information databases, are a key concern in the information systems ethics literature (e.g. Dejoie, Fowler, & Paradice, 1991; Gandy, 1993; Laudon, 1996; Mason, 1986; Mason et al., 1995; O'Connor, 1994; Rosenfield, 1995; Smith, 1993; Tricker, 1999; Wang & Petrison, 1993). “Personal information privacy, the ability to personally control information about oneself, is fast becoming one of the most important ethical issues of the information age” (Milberg, Burke, Smith, & Kallman, 1995). Whilst the cultural environment impacts on social attitudes to privacy (Eining & Lee, 1998; Tricker, 1999), all cultures and societies value privacy in some form or other (Milberg et al., 1995). In the current context, privacy is sometimes regarded as a “hypernorm”—a principle so fundamental to human existence that it should serve as a guide to action and public policy across all cultures (Milberg et al., 1995: 73). Any defence of privacy occurs in the face of an active challenge to it, as the capacity of new technologies breaches expectations of anonymity and confidentiality (Colman, 1997: 16). As new technologies make it possible to routinely collect more information about individuals, both business and government see an opportunity to use this information to increase profit and control (Mosco, 1988: 5).

The participation of citizens in the ordinary processes of daily life such as shopping, banking, travel, healthcare, and education all result in a data trail about the activities, preferences, and even thoughts of individuals—data collection is embedded in mundane organisational and social processes. Since it is increasingly essential for citizens to use the information technologies to bank, shop, or work, people tend to resign themselves to the loss of privacy (Mosco, 1988: 12). The increasing use of the Internet and electronic commerce brings the collection of personal data into sharp focus, posing particular challenges for privacy and security of personal information (e.g. Colman, 1997; Miller, 1997). Indeed, with regard to the use of the Internet, Besser (1995) suggests that the much-vaunted interactivity of the medium is substantially limited to people providing information about themselves—filling out multiple choice questions and entering credit card details. Further, Elmer's work suggests that commercial interests are using the Internet to automate the process of solicitation of data such that the mere entry of a user to an Internet site triggers the accumulation or use of a user's demographic and psychographic data (Elmer, 1997). Controversially, some organisations have been involved in using their customer databases simply as assets to be exploited by selling the data to other firms, including marketers (see Leyshon & Thrift, 1999; Nowell, 1999).

The electronic monitoring of the routine activities of individuals has reached such an extent that it has been suggested that "the surveillance society" is an appropriate label (Gandy, 1989). Nevertheless, within corporations the protection of the legitimate privacy interests of individuals do not seem to figure highly on the agenda. Corporate privacy policy is *ad hoc* at best, and most corporations that routinely handle personal data do not have *any* meaningful corporate policy with regard to privacy (Smith, 1993). Where it exists, corporate policy-making regarding information privacy has been primarily reactive and defensive (Milberg et al., 1995: 66). In relation to the Internet, Laudon (1995) suggests that there is an ethical vacuum in cyberspace.

Beyond Privacy (and Beyond P-A-P-A)

The use of information as a resource is conditioned and structured by the social institutions and relations within which it is embedded (Schiller, 1988: 41). Whilst they are important, the issues of privacy elaborated above are but a manifestation of the social context within which customer information systems are developed and used. More fundamental to the analysis is how these practices shape, and are reflective of, organisations and society. At an organisational level, customer information practices are a manifestation of the organisational "view" of the customer—how organisations construct and define their customers, how they conceive of and treat individuals, and how they think of and treat the individuals and groups which constitute their customers.

Customer information systems and organisational transformation

Much of the significance of customer accounting information systems lies in their instigation of specific kinds of organisational action. The availability of a calculus of customer value is an important element in shaping the organisation and its actions and generating a quite specific way of *seeing* customers. The 'facts' created by accounting calculus invariably prioritise the economic and financial rather than the social, and the knowledge created by accounting emphasises certain aspects of reality and particular cause-and-effect chains, while deemphasising others (Hopwood, 1983).

Once organisations have used customer data to construct and then prioritise a *financial* value attached to customers, it inevitably follows that some customers are recognised to be worth more than others. The focus shifts explicitly from '*providing* value *to* customers' to '*extracting* value *from* customers'. Customer focus is transformed into a process of "managing the behaviour of shoppers" (Raider, 1999), or more generally "managing the customer" (Dale & Marsden, 1989). Whatever the rhetorical banner under which it might be presented, accounting for the "worth" of customers inevitably centres not on their intrinsic or self-worth in-and-of-themselves, but on their worth to the organisation, and, consequently, their

"management" *by* the organisation, *for* the organisation. The shifts in organisational thinking and attitudes invoke entirely new conceptions of the customer and bring a new range of associated terminology.

Reconstruction of customers

The techniques and practices associated with customer information systems seem inevitably to lead to a conception of customers as mere assets to be exploited. According to Reichheld (1996), it is necessary to calculate the financial value of customers to the organisation, referred to as "inventories" of customers (pp. 3–4). The customer accounting literature generally is replete with talk of 'acquiring' customers, as if they are commodities to be bought and disposed of just like any other. Although this notion has been present in the customer marketing literature for many years—Levitt (1962: 65–66), for instance, refers to customer-oriented activities as "buying customers"—modern usage has become more hard-edged. The 'price to be paid' for a customer is regarded as a return-yielding investment (e.g. Gordon, 1998: 42). Wyner (1996: 36) suggests that "Low-value customers should receive fewer resources because the expected return from investment is likely to be small or negative". The expressionism of assets, inventories, and investments is intensely depersonal, omitting and even precluding consideration of customers as people.

Assets and liabilities, of course, are treated organisationally in quite different ways. High-value bank customers are offered ways to eliminate or reduce the overall fee levels, particularly through the establishment of 'multiple relationships' and the consolidation of all banking business with the one entity. Low-value customers are pushed away with low-cost banking options, where they are available, invariably requiring either minimal transactions per month or exclusive electronic operation of an account: personal contact with actual human beings is something that the poor cannot afford. Customers with low monthly balances (i.e. the financially poorest customers) incur account-keeping fees each month, outstripping any interest earned many times over. Yet, consistent with Gordon (1998: 45), these strategies of fee imposition and limited electronic service to low-value customers are rational 'disciplinary' strategies that should be imposed on customers who do not conform to the company's rules of engagement.

The core premise is that "getting closer to the customer" really means "only certain types of customers are worth attracting and nurturing" (Duboff, 1992: 10). Band (1991: 39) says that "it is essential to define the *vital few* who must be pleased and give less attention to the *useful many*, each of whom has only a modest impact on the company's profitability" (emphasis added). *The customer* is transformed from 'the person we serve' to 'the person we *choose* to serve'; indeed the customer becomes 'the person we choose to invest in, expecting a handsome return'. When constructed accounting numbers no longer show the customer as an asset, the customer comes to be conceived of as a liability. Action to eliminate the customer-liability is made far easier by a financial conception that depicts them as something 'bad'—in stark contrast to the rhetorical conception that depicts customers as being at the centre of the business mission.

At the centre of CRM is the reality that some people are considered to be valuable, and others are not. This conception creates possibilities for action in relation to customers which would be difficult to contemplate if the customer was thought of as a 'person', a 'fellow citizen', or a 'neighbour', for example.

Homogenisation and stereotyping

Colman (1997: 17) contends that the collection of vast amounts of personal information threatens the uniqueness of the individual. Customers, once defined by their membership of a presumed market segment, are effectively homogenised and treated only as averages, not as individuals. The process becomes one of socialisation, rather than recognising distinctions, and can reinforce social stratification (Curtis, 1988: 104).

Customer segments are assumed to be composed of homogeneous groups of customers who depict similar characteristics, behave in similar ways, and have similar needs, and, most significantly, are of similar financial values to the organisation. Weiss (1989) refers to the viewing of customers and potential custom-

ers in this way as the "clustering" of America—a process through which the entire citizenry of the United States, based on the postal (ZIP) codes in which they reside, has been effectively segmented for marketing purposes on the basis of government census data and consumer surveys. Turow's use of a different term—"breaking up America" (1997)—conveys a very different impression of the phenomenon. A discrete number of "lifestyle clusters" have been developed, and ZIP-coded neighbourhoods attributed to one of the developed clusters. Citizens in neighbourhoods—potential customers for marketers—are profiled on a range of dimensions, such as income, product preferences, reading interests, voting preferences, political viewpoints, and health.

Residents of neighbourhoods are stereotyped on the basis of the clustering and lifestyle types assigned. Labels range from the "blue blood estates" and "money and brains" down to "hard scrabble" and "public assistance". Increasingly, marketers (and geodemographic information vendors) use geographical socio-economic data published in official government census statistics and other "lifestyle" surveys to categorise people (e.g. Andon et al., 2001; Blattberg, 1987; Hughes & Wang, 1995; Sturdy & Morgan, 1993). They can also use such data to *exclude* whole categories of customers from business strategies. Whilst Weiss (1989) remains positive about the broad accuracy of the depictions of America and American life, Turow's cautions about a divided, fractured society and the creation of "electronic equivalents of gated communities" (Turow, 1997: 2) are much more sanguine. It is assumed that clustering is "a new and revealing way to describe how U.S. citizens really live" (Weiss, 1989: 2). "You are where you live …" (Weiss, 1989: 3). But you are, also, what your income is: income is an increasingly central variable in this mix. 'Communities' of people have come to be defined by their income levels; income is the "only one thing" people are likely to have in common with their neighbours (Reich, 1991: 277).

Terminological transformation

Along with customer segmentation and homogenisation, specific types of terminology facilitate the type of thinking required to create and implement an abstracted version of customers, quite apart from their existence as citizens/persons. Customer information systems and accounting create their own language that involve, in many cases, the appropriation, adjustment, and redefinition of terms used in everyday discourse. As the preceding discussion has shown, *customer value* itself is a term that is redefined with customers themselves reconstructed as assets with a financial value.

The concept of *loyalty* is a particularly important part of customer information systems, as it is the 'loyal' customer who is deemed to be truly valuable to an organisation. Reichheld (1996) has popularly proposed what he calls a "loyalty-based business paradigm". Under this paradigm, loyalty is not an end (or good) in itself. The generation of customer loyalty is aimed at ensuring a future stream of revenues (Schonberger, 1990; Walther et al., 1997), with loyalty at the centre of a "hidden force behind growth, profits, and lasting value" (Reichheld, 1993; 1996). There is rhetoric of loyalty being a two-way street, with the business also being loyal to the customer, but no parallel suggestion that a business should continue to serve a market segment, or customer, based on a perceived *obligation* to it. Quite the contrary: if the numbers don't add up, then loyalty, as in the notion of obligation, goes right out the window: loyalty only lasts as long as it serves the corporation's interests. Under this vision, loyalty is nothing more than a route to profit, desirable because it can increase CLV (Johnson, 1998).

Totally absent from this conception of loyalty is the notion of an admirable human quality based on reciprocity and mutuality. In contradistinction, loyalty is defined in the *Macquarie Dictionary* (1991) as "faithfulness to engagements or obligations". The act of being loyal requires one to be "faithful to any leader, party, or cause, or to any person or thing conceived as imposing obligations", while that which is faithful "may be relied upon, trusted, or believed". Central to the concept of loyalty is the act of adhering to an obligation: "a binding requirement as to action; duty". It is certainly difficult to equate the concept of self-interest, so integral to the practice of customer valuation, with conceptions of loyalty associated with it: customer valuation implies 'loyalty' based on the notion of return to the self, not obligation to the other.

For users of customer information systems, “Not all customers merit consideration by the firm” (Gordon, 1998: 45) so customers who are calculated to be unprofitable now and into the future should be *fired*, letting them “become someone else’s problem …” (p 46). Employing what might be characterised as aggressive terminology, it is suggested that businesses should choose whether to reward, manage, and discipline or fire their customers, depending on their worth to the firm (Gordon, 1998: 42–46). Businesses can ‘build, hold, harvest, or divest’ particular customers (see also Dwyer, 1989; Petty & Goodman, 1996a); for example, it is recommended that segmentation strategies be put in place to “harvest the best customers” (Bertrand, 1988). Petty and Goodman (1996b) use even harsher language in suggesting that customer valuation can be used to “eradicate … non-profit contributing customers …” (p. 55)—like any unwanted garden pest, presumably. Sturdy and Morgan (1993: 17) report that one bank which uses customer segmentation classifies its lowest-value customers as “leeches”. For Petty and Goodman, these groups are characterised as the “customers from hell”.

“Ideal” customers (profitable now and into the future) are to be *rewarded and invested in*. Currently profitable, but potentially unprofitable customers are to be *managed* to ensure the continuance of profitability. Currently unprofitable, but potentially profitable customers are to be *disciplined* by changing the processes used to service them, perhaps by offering electronic service only, or by charging them new fees-for-service. To meet the *organisation’s* needs, some “customers have to learn about new technologies, beliefs, and ways of behaving” (Houston, 1986: 86). If customers are unwilling or unable to change their behaviour in ways desirable by the organisation, the question may become how to “determine an appropriate way to disengage from the relationship”, since there are “benefits of losing unprofitable customers” (Wyner, 1996: 38). It seems that the only possible danger envisaged to flow from the ‘discarding’ of “deselected” targets, is that it may damage the corporate image (Sturdy & Morgan, 1993: 18).

In brief, the terminology associated with the use of customer information systems is both reflective and constitutive of the type of thinking embodied in the associated techniques. It represents a change in the way organisations view customers in a way that allows real people to be turned into abstract customers with attached financial values to be exploited or financial burdens to be eliminated or eradicated. In a seemingly neutral, objective, and precise manner customer information systems are used to categorise customers as good or bad, loyal or disloyal, worthwhile investments or not. Clouded by a veneer of ‘value’, the human characteristics of customers as people and fellow citizens are obscured, and any possible conception of broader obligations of the firm as a social player are obliterated.

Beyond Privacy: Access, Equity, Alienation and Social Exclusion

The design, development and implementation of powerful customer information systems, exemplified by the creation of databases with the capacity to store massive amounts of personal customer detail, gives rise to important ethical, social, and political issues. The rise of customer culture has had a wide impact and proponents continue to exhort the further adoption of customer thinking. Corporate knowledge of the customer is ostensibly related to the provision of better, more tailored customer service. But as the foregoing analysis demonstrates, customer information systems are increasingly used to segment customers into identifiable groups, to calculate the financial value of each group, and to selectively target some groups whilst excluding others.

Whilst the privacy concerns of individuals cannot be ignored and should not be downplayed, the organisational transformations and reconstruction of customers engendered by the use of customer information systems gives rise to starker concerns. The rhetoric of customer focus creates a public impression that the needs of all people are best served under this framework, yet, as is the case with much organisational practice, insufficient attention is paid to the basic rights of all citizens to fair access and equitable treatment.

Access and Equity

The discussion in this paper shows how the application of customer information systems is often fundamentally about denying access (or full access) to essential services, such as banking and insurance, to identifiable groups of people. The move from mass marketing to target marketing in markets that are still essentially constituted on a mass scale is of major social concern, since proper access to essential services is a right of citizenship, and real standards of living depend on such access (Emy, 1993: 218). The threat to equality embodied in new technologies (Gandy, 1993, 1995; Mosco, 1988: 17) is especially evident, yet "... we have lost sight of a growing class of people who cannot afford the price of admission to the information age" (Mosco, 1988: 10).

A corollary to the targeting of some identified customer groups, of course, is that other groups are *not* so targeted. As Duboff (1992: 11) admits, "everyone is chasing" the up-to 20% of the population who are categorised as high-income, high-spending, high-value market segment. Home-owners, middle-aged people, and rural populations are, in general, amongst the preferred demographic group (Reichheld, 1993: 66), whilst mobile populations, bargain-hunters, people who buy as a result of special incentives such as discounts, price-sensitive customers, and those who are attracted by favourable credit terms, are considered to be amongst the most undesirable categories (Hughes & Wang, 1995; Reichheld, 1993; Reichheld, 1996). Of customers who routinely shop for the lowest price, it is said that "No business should want those customers" (O'Brien & Jones, 1995: 77). It seems inevitable that such low-value, unprofitable customers will come from minority, poor, and disadvantaged groups.

It is not inly in the failure to positively target the poor and disadvantaged that the impact is felt. Reichheld (1996: 76–84), for instance, recommends that attention be paid not just to *attracting* the 'right customers', but also to "filtering out" the wrong ones. Filtering out may be direct or indirect. Banks (particularly those operating in oligopolistic markets), for example, may find it politically difficult to effectively eliminate low value customers by 'firing' them, so they 'discipline' them by charging fees and other imposts, offering low deposit interest rates, withdrawing services such as access to physical branches, and insisting that customers use only electronic banking. These issues are particularly pertinent because almost all people *must* regularly deal with banks to access their personal income, and fees and charges hit the poor hardest.

Alienation and Social Exclusion

Tinker (1984: 193) has suggested that conventional accounting measures of profit and wealth have little to do with social efficiency and productivity, but are indices of expropriation and social alienation. Profit alone is a "grossly inadequate" indicator of performance as it provides no indication of the distributional aspects of the underlying activity. The social alienation inherent in much corporate activity is invisible to most in the business community, due to the dominance of the assumed ultimate social good of high corporate profits and growth.

The financial value of a customer, which is increasingly used as a basis for corporate action towards the customer, is something that is actually brought into being by its very calculation (see Hines, 1988). Such calculated values are most often portrayed as objective depictions of reality, and they are used to make decisions that have real social consequences. In consequence, they are particularly significant and powerful in the social realm. Customer accounting is always presented as an *action-oriented* calculation, envisaging "substantially different" management actions based on the numbers produced (Sharman, 1996: 24), to "drive profit improvement throughout the business" (Petty & Goodman, 1996b: 55). Accountants such as Petty and Goodman (1996a: 2) describe the investigation of how well customers satisfy the business's goals as the logical "next step" of the customer focussed paradigm.

Similarly, it seems that in the marketer's contemporary vision, difference is not something to be recognised, discussed, and celebrated; inequality and inequity are not issues to be debated, confronted, and eliminated; these are things that are merely to be profited from. Marketing and customer targeting are

consciously status-oriented, creating a "computer-generated caste system … based on differences among individuals that may function to reinforce economic divisions in society ..." (Curtis, 1988: 105).

This comes down to a situation where the best deals are offered to the (already) rich, in the belief that "customers who generate superior profits for a company should enjoy the benefits of that value creation" (O'Brien & Jones, 1995: 76), albeit that these are the very customers who least *need* such deals. At the same time the poor are "managed" in such a way as to decrease the value delivered to them while increasing the value extracted from them. It is in this regard that customer valuation acts to increase the gulf between rich and poor, and to contribute to the systemic exclusion of individuals and groups from integral aspects of social and economic life (see Alden & Thomas, 1998).

Poverty and social alienation are linked with social exclusion, where people are excluded from participating in specific activities and structures which constitute a 'normal' way of life (Cole, 1999: 117). Social exclusion is an active process that is intimately connected to income as a basis of social participation through consumption, and a reflection of the power of money (Byrne, 1999: esp. Ch 5). Poverty as a basis of social exclusion is significant insofar as it can prevent social participation (Cole, 1999); and poor neighbourhoods and communities can become spatially excluded (Byrne, 1999: Ch 6). Cities are increasingly polarising (Byrne, 1999: 112) and such spatial exclusion determines access to crucial social goods such as education and health, which have an important impact on the possibilities for an individual's life trajectory. The lack of equitable access to essential services means that the socially excluding effects of poverty are likely to be magnified as a consequence of the exclusion of "low-value" customers.

Concluding Reflections: Examining Information Systems in Context

Customer information systems seem to be an attractive solution for many organisations. Associated accounting calculations allow distance between decision-maker and those on whom the decisions impact. This has come to be seen by some as desirable (see Miller, 1994). Impersonal and objectifying approaches to the customer may confer a level of moral security and intellectual comfort to those who cannot 'see' the human beings who are involved. It also facilitates the denial of responsibility, self-reflection, and criticism for the impacts of their actions (see Gorz, 1988: 121–124). It seems that all through the processes associated with customer information systems, human consequences are largely invisible. The significance of power (particularly the power to advance certain interests) in setting patterns in production, distribution, and use is often ignored (Mosco, 1988: 3). Yet the social costs of using technology to further concentrate wealth and power in the hands of the already wealthy and powerful are profound (see Mosco, 1988: 17). These concerns have a profound impact on social justice (e.g. Byrne, 1999; Chen, Evans, & Cash, 1999; Cox, 1995; Gough & Olofsson, 1999; Kaul et al., 1999; Rees, 1998).

In considering ethical aspects of customer information systems, the P-A-P-A model presents a useful tool for surfacing a range of relevant issues, but it seems inadequate in getting to the core social and political issues of concern in this paper. Whilst the model surfaces issues of privacy, accuracy, property rights, and accessibility, the deeper social and political concerns of access, equity, alienation and exclusion remain obscured. The limits of privacy as a value in itself have been considered by Etzioni (1999), who suggests the need to go beyond privacy as a value in itself, to the wider social and collective good. The philosophy of user fees and charges in the "pay-per society", in an environment where access to information is increasingly reserved for those who have the capacity to pay (Mosco, 1988, 1989), extends well beyond access to and charges for information. Further, the issue of who has property rights over information (as discussed in relation to market-based solutions to privacy concerns, for example, see Hagel & Rayport, 1997; Laudon, 1996) barely touches the core concerns addressed by this paper. The key access issue in relation to customer information systems does not revolve around who has access to the information held in databases (as suggested by the P-A-P-A model), but how the use of that information by powerful corporate players affects the access of people—especially the poor and disadvantaged—to basic goods and services.

Information systems ethics require a central understanding of how information technologies affect human choice, human action, and human potential (Laudon, 1995: 38). Laudon and Laudon's (1998) model of "ripples in concentric circles" explicitly requires consideration of the interrelated ethical, social and political issues. Laudon and Laudon (1998) discuss how individuals face ethical issues and make ethical choices in dealing with situations they face in daily life; over time social institutions collectively grapple with social issues and develop social expectations, norms, and rules; while ultimately political institutions develop laws and codes in dealing with political issues. The relative power of social players means that the outcomes at the political level are likely to be weighted towards the interests of dominant social groups.

Challenges for Information Systems Professionals

It is necessary for the information systems profession to overcome "... the rhetoric of liberation attached to the information industry" which limits our ability to understand and reshape the world in more desirable directions (Brook & Boal, 1995: xiv). Social integration is an important part of business ethics, and therefore of business responsibility (Schokkaert, 1999), making it vital that information systems professionals recognise that the creation of customer information systems is not a technical issue alone. The ethical implications of customer information systems cannot be considered in a simplistic way. The complexity of interrelations between customer information systems, customer accounting, and the marketing function of organisations, and the ultimate uses of customer databases need to be considered. Meaningful action must rest on the knowledge that technological developments in themselves do not automatically provide widespread social benefits. Both technology and associated social benefits are shaped by social forces (Besser, 1995: 59).

We must strive to use our influence, whatever that may be, to develop an alternative, more socially relevant and inclusive vision for applying the technologies we create. We must recognise that technologies cannot ever be alien to humanity, and we must make deliberate choices about how we proceed. Contributing to the overcoming of social divisions, as opposed to the creation and exploitation of social divisions for profit, is a worthwhile goal.

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