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# Gaining the World and Losing the Soul? Trust Change in Electronic Government

Mike Grimsley

*Sheffield Hallam University, m.f.grimsley@shu.ac.uk*

Anthony Meehan

*The Open University, a.s.meehan@open.ac.uk*

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# GAINING THE WORLD AND LOSING THE SOUL? – TRUST CHANGE IN ELECTRONIC GOVERNMENT

Grimsley, Mike, Sheffield Hallam University, Pond Street, Sheffield, S1 1WB, UK,  
m.f.grimsley @shu.ac.uk

Meehan, Anthony, The Open University, Walton Hall, Milton Keynes, MK7 6AA, UK,  
a.s.meehan@open.ac.uk

## Abstract

*We describe an empirical study of reported changes in citizens trust when an electronic government system supporting the allocation of public housing was introduced by a local government body in south east England. (Similar systems have been introduced in most local government districts of the UK.) We present an analysis of survey data (521 respondents) showing that users of the electronically-mediated service were much more likely to report a reduction in trust as a result of their experience whilst people who used a more traditional mode of service delivery were much more likely to report improved trust. Using multivariate modelling approaches, we identify those aspects of respondents' experiences which most influence the reported changes in trust, both positive and negative. We interpret these experiential factors in terms of clients' needs when they are frustrated in their ability to contribute to the co-production of a public service. We suggest that the origin of the problem with the ICT-mediated mode of engagement with the service may be rooted in the deployment of a model of co-production based upon e-commerce which was driven by central government targets and the related political agenda for service reform.*

*Keywords: electronic government, trust, co-production.*

## 1 INTRODUCTION

In the United Kingdom (UK), as elsewhere, electronic government (e-Government) continues to be represented as a significant opportunity to realise efficiencies in delivery of public services (HMT, 2006, p3). Efficiencies, it is argued, release resources to address other dimensions of citizens' expectations and preferences, be they reduced rates of taxation or extended and new public services. From a government spending perspective at least, it seems there is a material world to gain from e-Government.

But for government and public services to be efficient, they must first be effective; that is they must go a long way towards realising *both* the personal and social outcomes sought by citizens and their elected governments (Moore, 1995; Kelly *et al.*, 2002). Personal outcomes are related directly to specific services, for example, in respect of health care, education, housing, policing, justice and so on. Social outcomes are expressed in different terms such as social inclusion, community well-being, regeneration and sustainability, and, specifically, trust within communities and in government. Such outcomes feature prominently on the e-Government agenda (ODPM 2004, 2005). Here there is a different, and arguably more important, world to be gained from e-Government. This is the world of democratically expressed values and aspirations which may be viewed as an expression of the "soul" of a community.

An important question is: can e-Government assure the soul of a community whilst also pursuing the material goal of efficiency? In this paper we follow many others in taking trust, and specifically trust in government and its agents, as a key measure of community sustainability and well-being and our goal is to examine and understand how e-Government might on trust.

Most of the research literature on trust and e-Government has centred on users' trust in the technological artefacts themselves, often examining trust in terms of usability and/or security; very little empirical work has been reported on the impact of e-Government on the trust citizens express in government, its agencies, its officials, or its elected representatives. This paper describes an empirical study of the reported changes in citizens' trust when an e-Government system supporting the allocation of public housing was introduced by a local government body (council) in South East England. Similar schemes, so-called choice-based letting or CBL, schemes, have been introduced in many local government districts of England. We present an analysis of sample survey data (521 respondents). Using multivariate modelling approaches, we identify aspects of the respondents' experiences of the e-government system which most influence the reported changes in trust in officials, the council as institution, and elected representatives (councillors).

We seek to develop an understanding of these factors, grounded in psychological needs related to citizen empowerment and interpreted as antecedents of trust. Focusing on loss of trust, we locate one possible root of the problem in the adoption of e-commerce as a model of e-Government service provision and the recasting of citizens as 'customers' or 'consumers' (Clarke *et al.*, 2007).

Finally, we consider some of the implications of this analysis for the design and management of e-Government systems which mediate citizens' experience of government and public services.

## 2 TRUST

In the context of relations between government services and their clients, we consider clients' expressions of trust as reflecting a psychological state arising from their experience of vulnerability in the light of their expectations of the intentions and behaviour of the service provider. This formulation qualifies a very similar definition attributable to Dirks and Ferrin (2002); specifically, it seeks to avoid any notion that trust is simply dispositional or attitudinal. Instead we incline to the view of Calnan and Rowe (2006) and see trust as "constructed from [expectations and experiences of] behaviours

underpinned by institutional rules, laws and customs”; in this case, people’s experience of the relationship between themselves as people in need of public housing and a local council, its officers and their elected representatives as governmental agency administering public housing policy.

The connection between experience of vulnerability, in this sense, and trust as a psychological state is articulated by Luhmann (1994) who sees trust as arising in situations of risk, where one must accept the “possibility of future loss as a consequence of one’s own action or omission” (p105). Of significance here is his observation that people attribute to themselves responsibility for choice of action and that people whose experience is one of not taking the right action at the right time are “likely to enter sooner or later into the vicious circle of not risking trust, losing possibilities of rational action, losing confidence in the system, and so on being that much less prepared to risk trust at all” and of “liv[ing] with a new type of anxiety about the future outcome of present decisions, and with a general suspicion of dishonest dealings” (p105). Thus, Luhmann points towards a link between corrosion of trust, anxiety, alienation and social exclusion.

Empirical evidence of this link is provided by MORI (2003) who demonstrated that “[t]he level of trust in an organisation affects levels of use and engagement with services. Some [people] avoid contact with services they do not trust unless it is absolutely essential. This can have a direct impact on how well services meet the wider community’s needs”. More generally too, wider community well-being and sustainability appear to be strongly associated with high-trust societies and trust is widely believed to be essential for their realisation (Green, et al., 2005).

The introduction of e-Government and ICT-mediated access to public services often brings with it a shift from traditional bureaucratic structures delivering public services towards an increased ‘responsibilisation’ of citizens and clients (Clarke, et al., 2007) as the balance of entitlements (rights) and responsibilities is shifted. If such a shift is to be pursued, it seems crucial that e-Government does nothing to undermine trust; ideally, it should enhance trust.

In related work on trust in public services in general, we have described a model based upon perceptions of service outcomes and upon well-informedness, influence, and control in one’s personal life as three mediating experiential factors (Grimsley and Meehan, 2007). In this present paper we examine specifically the issue of the impact of an e-Government application on clients’ expressed trust in public officials, services and elected representatives.

### **3 CASE STUDY**

We have undertaken a survey of people using a recently deployed e-Government system which mediates their engagement with a local government housing department when they are seeking new or alternative public or social housing. We begin this section with a brief description of this context, followed by an account of the survey instrument and the analytical methods used.

#### **3.1 Choice-based letting (CBL)**

In England, as in many other countries, local government authorities (councils) maintain a stock of public housing, serving a number of economic and social functions. Many local councils administer their housing stock through a housing department, accountable to the elected council, but managed and staffed by professional council officers. Historically, many housing departments have been organised as bureaucracies, adopting professional attitudes to clients and administering housing stock ‘in the public interest’. In doing so, these departments have been the locus of expertise, power and authority in relation to their clients. E-Government systems embodying choice-based letting (CBL) represent a potentially significant departure from the traditional approach to allocation of public housing. Such schemes have sought to increase the extent to which clients are more routinely involved in the work of finding a solution to their accommodation needs - a process of co-production.

CBL systems use modern electronic communications technology such as the Internet, text messaging from mobile phones, and automated telephone answering and recording, to support clients in respect of each of the three stages described below. Additionally, clients may contact their Local Housing Office (LHO). Back-office systems remain predominantly personnel-based. Officials make the initial assessment of housing need, respond to clients' queries, and determine the allocation of each property.

Once clients have been accepted as being in need of housing, engaging with the allocation system can be viewed as a three stage process in which clients often use a 'pick and mix' approach:

- *Finding out about properties.* Information about properties is publicly available on the Internet, in the pages of a local newspaper, and at the LHO. Some Internet users refer initially to the local paper, accessing the Internet only if there is a property of interest.
- *Bidding.* To use electronic bidding, clients must first register to obtain a personal identity code (ID). Some electronic bidders use one means to place a bid and another to check that it has been received; this may involve contacting their LHO.
- *Feedback.* With the exception of those relying exclusively on text messaging, registered electronic bidders can monitor their position relative to other bidders for a property. All clients can monitor progress by enquiring at their LHO. When an allocation has been made, feedback detailing the total number of bids made for a property, together with the priority band and accrued waiting time of the successful bidder, is made publicly available on the Internet. Any client can receive more detailed feedback from their LHO.

At some time, most clients will seek to contact their LHO in order to enquire about a particular bid or to revisit the details of their needs, hoping to improve their likelihood of success. Some clients do not engage with any of the electronic systems at all, relying wholly upon contact with the LHO.

Of course, given the high demand for a limited supply of public housing, most clients will repeat this cycle many times in their efforts to find suitable accommodation.

### 3.2 CBL and Co-Production of Services

It is appropriate to recognise that the development of ICT-mediated CBL is, in many ways, at the forefront of strategic capability in electronic government service delivery. We can discern three strategic modes of interaction between people and e-government systems:

- Information seeking (e.g. looking for the 'what, where, when, and why').
- Transactional (e.g. paying taxes, parking-fines, applying for planning permission, etc.)
- Complex problem solving (e.g. interacting with social services, school allocation, public housing, justice, etc. and possibly more than one agency).

This taxonomy echoes that of Hughes (2003), which features four developmental stages: Information, Interaction, Processing, and Transaction (see Cordella, 2007). However, we feel the conventional representation of Hughes's taxonomy doesn't fully acknowledge the difficulties of developing systems that equip people to contribute effectively to the solution of often intractable personal and social problems.

We suggest there is a more subtle (and important) distinction between the two taxonomies. In our formulation we seek to emphasise the extent to which the client's responsibility for the co-production of the service is maintained, or even increases. Co-production implies that 'citizens can play an active role in producing public goods and services of consequence to them' (Ostrom, 1996, p1073) and to this end 'public services can either elicit synergistic, cooperative behaviour from clients that improves the overall quality of service delivery, or may fail to do so' (Joshi and Moore, 2004, p39). By contrast, in Hughes's conception, it is the system that becomes more and more capable in respect of problem solving. (Dunleavy, et al., 2005) have observed that the thinking underpinning the development of early e-governments systems, characterised as New Public Management (NPM), has served to diminish people's ability to solve complex problems.)

From our perspective, co-production is an important concept as the extent to which it is made evident in the design of a system shapes or frames users' expectations. This shaping is particularly strong in the case of 'choice-based letting' which implies that the work co-production is the exercise of 'choice', in contrast to the expectations associated with the system it replaced – widely known as the housing *waiting* list.

### 3.3 Survey and Analysis

We explored clients' evaluations of the CBL system by means of a survey, six months post launch. A questionnaire designed which recorded a number of aspects of users' experience of the CBL system, their attitudes towards it and towards the council officers, the council itself, and the elected councillors who are democratically accountable for housing policy. (For a full copy of the survey instrument, see <http://www.grimsleymeehan.co.uk/>.) The questionnaire was sent to all clients recognised by the council as 'in need of housing'; 2315 clients were registered to use the ICT-mediated system and 3625 were not. There were minor differences between the two survey instruments to reflect the clients' registration status.

Of those surveyed, 244 (11%) registered users responded and 427 (12%) non-registered users responded. This is a relatively low, though not unusual, response rate for a self-completion postal survey, for which returns of between 10% and 30% may be expected. Factors which may have influenced response rates include the length of the survey form (70 items over nine pages), the time of year (the survey coincided with the end of the summer holiday period and the return of children to school), the relatively short period within which to respond, and the fact that no reminder letters were issued due to time and resource constraints. Nonetheless, the number of clients who did respond enable us to be confident about statements we make about the experiences of respondents, though less so about statements concerning all clients.

The questionnaire featured a number measurement items and the analysis created further derived measures related to client experiences and attitudes. Coding of original and derived measures was designed to facilitate multinomial logistic regression modelling from which were derived appropriate odds ratios (see below).

Measurement items were grouped in keeping with the focus of this paper as follows.

*Trust change* was measured using three items, each with a 3-point response scale. Respondents were asked to state whether their experience of the system had led to 'more trust', the 'same trust', or 'less trust' (scored 1-3, respectively) in each of: housing officers; the council; the elected councillors.

A derived score for 'overall trust change' summed the individual item scores and thus takes values in the range 3-9, with a score of 3 reflecting a loss of trust in all three and 9 an enhancement of trust in all three.

*Service Experience* was measured via a number of items that relate to clients' ability to engage 'co-productively' with the service:

- 'the extent to which clients felt able to influence or negotiate' and 'the extent to which clients felt more empowered', 'the extent to which they were helped to appreciate why other applicants experienced positive outcomes when they did not', 'the extent to which users have been helped to think of alternative solutions to their accommodation need', 'the extent to which clients felt that they had become better informed in respect of housing policy in general';
- two further items related to clients experiences of engaging with housing officers directly: 'how easy it was to speak to a housing officer when needed' and 'whether officers were able to answer queries in a reasonable length of time'.

## 4 OVERVIEW OF RESULTS

It is not feasible to give a detailed account of the modelling in the space allowed for this paper. Instead we provide a high-level summary of the main points gleaned from the multivariate modelling. In doing so, we are careful to be conservative in making relatively general assertions.

### 4.1 Overall Trust Change

Viewed broadly across all respondents, six months after the launch of the new scheme just under one quarter (22.8%) of respondents reported an increase in overall trust resulting from the system, a further quarter (26.7%) reported a decrease in overall trust, and the remaining half (50.5%) reported no change in overall trust.

About one in five respondents felt less trust in housing officers, the council and elected councillors, respectively. In terms of overall increased trust, marginally more respondents (20.7%) reported an increase in trust in the council, than in housing staff (17.5%) or elected councillors (12.5%).

### 4.2 Trust and ICT

We now examine differences in trust change reported by people who were registered to use the full range of ICT-mediated facilities of the new system (labelled ICT-users) compared to those not so registered (labelled non-users), that is those choosing, in the main, to go through their Local Housing Office to bid, monitor and receive feedback. (Note, however, that about a quarter of this group did use the internet to search for possible properties).

Tables 1-3 make clear that, for the ICT-users, the experience of CBL seems to have had a relatively negative effect on the trust in Housing Officers, the Council, and Elected Councillor. For non-users there is a relatively positive effect. In each table a larger percentage of ICT-users feel a worsening of trust than an improvement; more non-users feel an improvement in trust than feel a worsening of trust (Tables 1-3).

Reported Change in Trust	ICT-User respondents (N=244)		Non-User respondents (N=427)	
	No.	%	No.	%
More	22	9	97	23
Same	143	58	131	31
Worse	53	22	66	15
<i>Missing</i>	26	11	133	31

Table 1. Change client in trust in Housing Officers.

Reported Change in Trust	ICT-User respondents (N=244)		Non-User respondents (N=427)	
	No.	%	No.	%
More	24	10	119	28
Same	137	56	127	30
Worse	57	23	54	12
<i>Missing</i>	26	11	127	30

Table 2. Change in client trust in the Council.

Reported Change in Trust	ICT-User respondents (N=244)		Non-User respondents (N=427)	
	No.	%	No.	%
More	13	5	72	17
Same	137	56	151	35
Worse	59	24	64	15
Missing	35	15	140	33

Table 3. Change in client trust in Elected Councillors.

Statistically, ICT-users were, on average, about four times as likely to report a decrease in overall trust as opposed to reporting an increase in overall trust, when compared with non-users and this relative effect was broadly the same in respect of changed trust in housing officers, the council, elected councillors.

#### 4.3 Experiential Factors Underpinning Trust Change

In considering experiential factors that appear to most influence changes in trust we aimed to identify differences in the way factors relate to trust in housing officers, the council itself, and elected councillors. It is evident that changes in trust are associated with age and length of time waiting so appropriate statistical adjustments were made to allow for this.

The findings for explanatory experiential factors are summarised as follows.

*Appreciating the (negative) personal outcomes of bidding.* A very prominent factor associated with changes in trust appears to be the extent to which people feel that they appreciate why others are allocated a property when they are not. The effect of this factor is particularly important in relation to trust in housing officers and the council. Compared with people who rarely feel they understand the outcome of an application, people who usually feel they understand are 40 times as likely to report increased trust rather than decreased trust in housing officers, and 50 times as likely in respect of trusting the council. The effect on trust in councillors is less than this, but still very appreciable. - a factor of 13.

*Being able to speak to a housing officer when needed.* This factor has a particularly apparent notable influence on changed trust in housing officers. Relative to people who found it difficult to speak to a housing officer when needed, people who found it easy were more than 17 times as likely to report an increase in trust in housing officers compared to those reporting a decrease in trust. This compares with a factor of 11 times for trust in the council and just over three times for trust in councillors.

*Influencing and negotiating.* Relative to people who rarely feel able to influence or negotiate, people who feel the new system usually helps in this respect are seven times more likely to express increased trust in housing officers compared to decreased trust. Interestingly, the effect on trust is even more pronounced in relation to the council in general, where the corresponding likelihood is nearly 15. This factor also impacts on trust in councillors, but to a less pronounced degree. In this case, the ratio is just over four.

*The ability of housing officers to answer queries in a reasonable length of time.* This factor is comparable in importance to the perceived ability to influence and negotiate, although its impact in relation to trust in the council is less pronounced.

*Feeling better informed about housing in general.* The evidence is that there is no difference in the proportions of ICT-users and non-users reporting no improvement in understanding of policy (32% and 31%, respectively) and, indeed, there is an appreciably larger proportion of ICT-users reporting an improved understanding of 'housing in general' compared to non-users (50% and 37%). This factor has the greatest influence on trust in elected councillors. Compared to people who do not usually feel

better informed about housing in general, people who do are more than 15 times as likely to report an increased trust in councillors compared with people reporting decreased trust in councillors, on the basis of their experience with TCH. There is also evidence of a fairly strong effect on trust in housing officers (11 times as likely) and on the council (eight times as likely).

*Being helped to consider alternatives.* A factor that seems to be a particularly strong influence on trust in councillors (whilst being of relatively marginal or no influence in relation to trust in officers and the council) is the extent to which people feel that they are helped to consider alternative solutions to their housing needs. Compared with people who rarely feel helped in this way, others are more than five times as likely to express increased trust in councillors as decreased trust.

*Feeling more empowered.* A sense of feeling more empowered has a very noticeable impact on trust in the council and an appreciable impact on trust in housing officers. Its contribution to trust change in councillors is not significant.

One way of obtaining a more general overview of the factors driving trust change in housing officers, the council and elected councillors is to seek to rank the factors. (In the rankings below, it should be noted that the first two (numbered) factors in each case appear particularly prominent. The remaining (bulleted) factors are also statistically significant but their relative rankings may not be reliable.)

Trust in **housing officers** is principally driven by:

1. Client's appreciation of why they themselves are unsuccessful in an application.
2. Ease of contacting a housing officer when needed.
  - Being better informed about housing in general.
  - Sense of empowerment.
  - Being more able to influence/negotiate.
  - Ability of a housing officer to answer queries in a reasonable length of time.

Trust in the **council** is principally driven by:

1. Client's appreciation of why they are unsuccessful in an application.
2. Sense of empowerment.
  - Being more able to influence/negotiate.
  - Ease of contacting a housing officer when needed.
  - Being better informed about housing in general.
  - Ability of housing officer to answer queries in a reasonable length of time.

Trust in **elected councillors** is principally driven by:

1. Being better informed about housing in general.
2. Client's appreciation of why they are unsuccessful in an application.
3. Being helped to consider alternatives to their accommodation needs.

## 5 DISCUSSION

In our account of trust (section 2) we presented clients' trust as a psychological state constructed in the light of their expectations and experiences of public service behaviour (underpinned by perceptions of rules, laws and customs), which we characterised as shifting from traditional bureaucratic provision to co-production. We pointed towards a possible link between experience of not taking the right action at the right time (essential for successful co-production) and entering a spiral of not risking trust, losing possibilities of rational action, losing confidence in the system, and being less prepared to risk trust at all. In this discussion, we consider our empirical findings, presented above, in relation to this hypothesised link between clients' trust and their ability to act appropriately in the context of co-production of their desired outcome.

It is evident that most respondents, and especially ICT-users, consider that they now have a better understanding of 'housing in general'; this we might characterise as an improvement in transparency.

Despite this, those clients using ICT to apply for a property that is available, monitor the progress of their bid, and obtain information about the outcome, are much more likely than non-ICT users to report a reduction in trust in housing officers, in the council and in elected councillors. Examining the relative significance of the different experiential factors, it is also clear that a client's appreciation of why they are unsuccessful when others are not is the single most important factor influencing trust change. Thus, there is a clear implication that the ICT-mediated mode of engagement does not sufficiently satisfy clients' needs or expectations in respect of coming to understand outcomes in the way that engagement with a housing officer does. Overall some 38% of registered ICT-users compared with 27% of non-users felt that they rarely understood why they were unsuccessful. How might this impact trust in the terms we have set out?

One explanation for this is that this factor is related strongly to the perception of fairness, seemingly heightened by the transparency reflected in respondents' reported increase in understanding of 'housing in general'. In the absence of an explanation as to why you are treated differently to the successful applicant it is very difficult to resolve doubts about the fairness or equity of a decision. But beyond fairness, lack of appropriate feedback makes it difficult to consider alternative courses of action to improve one's chances – should one apply for smaller properties, for properties in different parts of the borough, for private sector accommodation, etc.? The absence of ICT-mediated feedback on outcome may thus be taken as challenging expectations of 'rules, norms and customs' *and* inducing a sense of uncertainty in relation to what is the appropriate next action.

A second factor, empowerment, was experienced differently by ICT-users and non-users. Nearly 43% of ICT-users did not feel more empowered compared to just 29% of non-users. There was little difference between these groups in relation to enhanced empowerment (32% and 29%, respectively). In seeking to account for the significance of this factor, we begin by considering two aspects of empowerment: increased control and reduced uncertainty.

In the context co-production of public services, empowerment certainly implies a transfer or redistribution of control over the process of finding and securing public housing. This aspect of empowerment was recognised by respondents who were registered users of the ICT-based system. Overall some 66% of such respondents felt that the new system had increased their control, whilst only 19% felt it had not. Interestingly, an appreciable number of ICT users did not feel more empowered even though they did experience more control. In seeking to explain this we turn to the psychological notions of 'influence' and 'contingency'. Having a sense of influence is one of the drivers of trust (Grimsley and Meehan, 2007). Contingency captures the relationship between action and outcome. It inheres in the ability to identify a (rational) relationship between one's actions and a perceived response. This allows one to adapt behaviour in pursuit of some desired goal. Loss of contingency may be associated with uncertainty and unpredictability and it is associated with sense of powerlessness, helplessness, alienation, or even mental illness (Skinner, 1996).

The relationship between empowerment and reduced uncertainty in the context of e-Government is considered by Zimmermann and Finger (2005), who follow Crozier (1963) in suggesting that power arises through control over a certain span of uncertainty and that those lacking power strive for more certainty, which allows them to better strategize (Zimmermann and Finger, 2005, p232). There seem to us to be obvious and strong connections between this formulation and the experience of clients, especially the ICT-users, who, in the face of a more transparent process over which they experience more control, find themselves unable to account for their failure to secure accommodation when others do, and are thus unable to discern how they might better 'strategize' in respect of their goal. Viewed from the perspective of co-production, ICT-users in this study have been ill-equipped to play their role successfully.

This analysis points to an explanation of the relative prominence of the next factor we consider: the ease of contacting a housing officer when needed. In the current system, given the limitations of the ICT, housing officers are the only source of information and explanation as to why a client is unsuccessful. Beyond that, they are also able to offer personalised guidance on how to proceed in

future. Thus, for those clients who find it easy to contact housing officers, their experience is likely to be one which addresses precisely their greatest informational need. A high percentage of ICT-users, and especially younger people, did not find it easy to speak to a housing officer when needed (40% compared to 29% for non-users) and there was a striking difference on the proportions who found it 'very difficult', 15% compared to 6%, respectively. People who feel able to contact housing officers (partially) remit their co-productive role to the traditional agent of housing allocation.

At this stage, we perceive that for those clients whose expectations of the co-productive intentions and behaviours of the new CBL process have been met, there has been a positive effect on trust in officers, the council and elected officials, but that for those whose expectations have not been met – and especially in one specific and important regard which involves the explanation of negative outcomes – then there has been an undermining of trust. In each case, we have pointed to an interpretation that involves associates increased uncertainty in the client as to what is the next action to take and when with recognised psychological phenomena, and especially loss of contingency. When clients engage with a housing officer for guidance and advice, or perhaps even remit responsibility for action to them, then there is at least an amelioration of trust, if not an enhancement.

How might all this have come about? The tentative explanation we offer here is that many current e-government systems are rooted in a model for e-commerce that has been imported inappropriately into e-government. In the 1990s New Public Management had placed "an inappropriate emphasis on narrow concepts of cost-efficiency and a downplaying of non-functional objectives that were difficult to measure" and the "reduction of goals to simplistic targets that lend themselves to manipulation and contrivance in their attainment" (Kelly, Mulgan, Muers, 2002). Confronted with significant central-government incentives (and penalties) promoting rapid development and deployment of e-government services between 2000 and 2005, it is not surprising that off-the-shelf technologies were sought. Modern e-commerce systems are relatively well matched to the first two strategic forms of e-government service we considered above: informational and transactional, but currently they seem ill-suited to supporting the solution of complex personal and social problems. Alongside the central-government incentives to deploy such systems there was an associated ideological move associated with the government's reform agenda in the public services. This move re-cast citizens as consumers and/or customers "harvesting information", "making informed choices in the market", "walking away from public services which do not command their confidence" (Milburn, 2002). It is not easy to reconcile this rhetorical enthusiasm with the reality confronting people on housing waiting lists, where, we have suggested, complex problems require effective design of co-productive systems for the desired public service outcomes. (For a recent critical account of the notion of the citizen-consumer, see Clarke et al., 2007).

## 6 CONCLUSION

This paper has examined the effect on clients' trust when ICT is used to mediate access to a public service, in this case, public housing. Specifically, it has looked clients' reports of changed trust in local government officers, the local council as an institution, and in elected representatives. The evidence is that there is an appreciable net decrease in reported trust from users of the ICT-mediated mode of engagement and a (small) net increase in trust for those not using ICT. A number of experiential aspects appear to be key drivers of these changes in trust, the most prominent being the extent to which clients were able to appreciate why they were unsuccessful when others were not, their sense of empowerment, and the ease of contacting a housing officer when needed.

The context of this enquiry (allocation of public housing) is one of a number of public services that entail the solution of complex problems - in particular, they require the co-production of the service by both officials and clients. The factors driving change in trust have been interpreted as indicating the extent to which clients felt equipped to contribute to that co-production.

We pointed to a connection between this factor and the possible diminution in a sense of personal contingency and of not knowing what appropriate strategic action at any time, as being the psychological basis for loss of trust. Perhaps ironically, this experience may have been reinforced by a sense of enhanced knowledge and transparency.

We have suggested that the an underlying issue may be that models of e-commerce that fall short of what is needed for co-productive effort in complex public service contexts have been deployed in response to central government targets for realising efficiencies from e-government investment and the related political agenda for public service reform or 'transformation'. In light of the findings of this case study, one might tentatively conclude that, though ICT-mediated approaches provide a valuable means of supporting some forms of public service provision, they cannot yet replace the role of the traditional public official when co-productive effort is required to solve complex problems. In particular, inappropriate reliance on inadequate models of interaction from e-commerce technology risks negative "spill over" effects on levels of trust – not good for the community's soul!

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