

**Centre for International Research on  
Communication and Information Technologies**

**Policy Research Paper**

**No. 41**

---

**The Use of Electronic Money  
in the Home**

**by Supriya Singh**

© CIRCIT Ltd September 1996

Production: Rachel Abrahams

---

## About the Author

**Dr Supriya Singh** is a Senior Research Fellow at CIRCIT. She holds a Ph.D in Sociology and Anthropology from La Trobe University. Her doctoral study was entitled *Marriage, Money and Information: Australian Consumers' Use of Banks*. She was awarded the Jean Martin Award by the Australian Sociological Association for the best Social Science thesis in Australia for 1993-95.

The thesis is to be published by Allen and Unwin. This follows her previous books on banking history in Malaysia and Australia, *Bank Negara Malaysia: The First 25 Years, 1959-1984* (Bank Negara Malaysia: 1984) and *The Bankers* (Allen and Unwin: 1991).

At CIRCIT, she heads the research unit "Understanding demand for residential interactive multimedia services" and is developing CIRCIT's Asia-Pacific programme. She has initiated and coordinates a monthly discussion group on *Information and the Consumer Interest* which since 1991 has brought together consumer representatives, academics and people in government and business. She has also developed CIRCIT's *Symposium on the Information Process* and *Workshops on Asia-Pacific* which bring together academics from various disciplines.

Since 1993, Dr Singh has represented consumers on the Australian Payments System Council. She has submitted on behalf of the consumer movement to the Martin Banking Inquiry in 1991 and the Prices Surveillance Authority Inquiry into Bank Fees and Charges (1995). She has also submitted on behalf of CIRCIT to the Financial System Inquiry (1996) and the Electronic Commerce Task Force (1996).

Dr Singh is a consultant to Australian consumer groups on banking and consumer issues and a Counsellor for the Committee for Economic Development of Australia. Her works include *Banking on the Margin* (1989), *Banks and Migrants: An Untapped Market* (1992) and *For Love not Money: Women, Information and the Family Business* (1995).

---

## Acknowledgments

I would like to thank Amanda Bow and Karen Wale. They did much of the interviewing and coding of data for the broader project *The Use of Information and Communication Technologies in the Home*, which partially sets the framework for this paper. I would also like to thank the external review panel comprising Dr Dallas Isaacs (Telstra Research Laboratories), Mouli Ganguly (Telstra), Associate Professor Patricia Gillard (Royal Melbourne Institute of Technology) and Associate Professor Peter White (La Trobe University). They helped with their comments in the initial shaping, progress and review of the project.

I would also like to thank Telstra and Nortel for supporting CIRCIT's broad research programme focused on Understanding Demand for Residential Interactive Services.

---

## Keywords

Electronic Money, Internet, Australia, Users, Payments, Transactions, On-line, Home.

---

## Table of Contents

<b>1.</b>	<b>Key Findings</b>	<b>1</b>
1.1	Users Mix and Match Forms of Money in Increasingly Diverse Ways	1
1.2	People Combine Payments Instruments and Transaction Modes into Forms of Money	1
1.3	People Use Different Forms of Money for Different Kinds of Payments	1
1.4	Forms of Money Yield Different Kinds of Information which Match Information Required for Various Payments	2
1.5	Electronic Money Makes Access and Information about Money More Readily Available	2
<b>2.</b>	<b>Introduction</b>	<b>3</b>
<b>3.</b>	<b>Methodology</b>	<b>5</b>
3.1	The Sample	5
3.2	The Users' Perspective	8
<b>4.</b>	<b>Use of Forms of Money</b>	<b>12</b>
4.1	Forms of Money	12
4.2	Mixing and Matching Forms of Money	14
4.2.1	Barriers to access	14
4.2.2	Abbie's story: Cheques and dairy farming	15
4.2.3	Goldie and Gordon's household: Cash, branches and the Internet	16
4.5	Forms of Money Match Kinds of Money	19
4.5.1	Paying for groceries	20
4.5.2	Gambling with real cash	21
4.6	Information Connects Kinds And Forms Of Money	22
4.7	Internet Money Is A New Form Of Money	27
4.7.1	Bob's story: Buying books from Boston but paying by cheque at the post office	28
4.7.2	Ryan's story: Concern with Security	29
4.8	Forms Of Money And Trust	29
4.8.1	Lisa's story: Cash, cheque and direct debit	31

<b>5</b>	<b>Electronic Money As A Social And Cultural Phenomenon</b>	<b>33</b>
5.1	Electronic Money Changes the Management and Control of Money in Marriage	33
5.3	Financial Management Programmes - Are They Making Money More Male?	35
5.3.1	Jean and John: Retirement, Quicken and Husband's Control of Money	35
5.3.2	Isabel and Indra: Quicken, defacto partnership and jointness	37
5.3.3	Fred's story: Quicken and the traceability of business and domestic money	38
5.4	Cultural Distinctiveness of Money	40
5.4.1	Electronic money in Malaysia	41
<b>6.</b>	<b>Implications for Policy and Strategy</b>	<b>43</b>
<b>7.</b>	<b>Future Research</b>	<b>49</b>
	<b>References</b>	<b>50</b>

---

## List of Tables

1. Socio-Economic Characteristics of the Money On-line Sample	6
2. Socio-Economic Characteristics of the Marriage Money Sample	7
3. Pattern of Change in Money Management and Control in Woodville: The Below 65s and Their Parents	34

---

## List of Figures

1. The Providers' Perspective: The Technology Approach	8
2. The Users' Perspective: The Activities Approach	10
3. Forms of Money: Combining Payments Instruments and Transaction Modes	13
4. The Mix and Match of Forms of Money Used in Goldie and Gordon's Household	18
5. Information Dimensions of Forms of Money	24
6. Information, Kinds of Money and Forms of Money in the Household	25
7. The Providers' Perspective: The Policy Focus	46
8. Adopting the Users' Perspective: Policy Focus	48

---

## 1. Key Findings

There has been little study of demand for on-line services and payments in the home. This study draws on two qualitative studies of money to fill a critical gap by focusing on the social and cultural meanings of electronic money from the perspective of the residential user.

The key findings of the study are:

### 1.1 Users Mix and Match Forms of Money in Increasingly Diverse Ways

Placing users' activities at the centre of analysis reveals that electronic money has increased customers' options to *mix and match* physical and electronic *forms of money*. Payments providers and regulators thus need to radically shift their focus.

- Instead of emphasising the *convergence* of digital technologies they need to address the greater *diversity* of the ways customers pay for goods and services
- Instead of preparing for a wholly on-line payments environment, they have to position their organisations to deliver in multiple ways via transformed physical and electronic networks.

### 1.2 People Combine Payments Instruments and Transaction Modes into Forms of Money

The combination of a payments instrument and the mode of transaction is the form of money. An emphasis on forms of money helps one recognise that:

- Payments have never been solely a banking matter;
- A new form of Internet money is emerging, which uses the Internet as a transaction mode.

### 1.3 People Use Different Forms of Money for Different Kinds of Payments

Despite the dramatic growth of electronic forms of money, physical forms of money continue to dominate in an increasingly diverse mix. At a personal and household level:

- People use different forms of money as one of the ways of separating different kinds of payments;
- People use particular forms of money for specific kinds of payments. For instance, they generally pay for groceries in cash or as a direct debit via EFTPOS; cheques paid across the counter are most often used for paying utility bills; and credit cards in a customer-retailer transaction are the preferred form for paying for travel;
- Low income and lack of functional literacy and numeracy are associated with lack of access to bank accounts; electronic transactions, and access to on-line services from the home.

## **1.4 Forms of Money Yield Different Kinds of Information which Match Information Required for Various Payments**

Information is the key factor explaining the congruence between different kinds of payments and forms of money.

- The important information dimensions are timeliness, range, record and context. Does the form of money give immediate or deferred information? Does it give information about the money spent or the money still in hand? Does it offer an immediate evidential record or is it untraceable? Is the transaction context physical or virtual? Personal or impersonal?
- Internet money differs from previous forms of money for it is both impersonal and virtual in context and often in its record;
- Comfort with the use of Internet money, as with other forms of money depends upon a person's trust in the security and reliability of the system and his or her control of the particular transaction. This trust and control can be facilitated by ensuring that the payments instrument and/or the transaction context is physical, personal and/or familiar.

## **1.5 Electronic Money Makes Access and Information about Money More Readily Available**

Money shapes and is shaped by social relations and cultural values. This study shows that:

- Among the majority of middle-income Anglo-Celtic married couples in Australia with joint accounts, electronic money has made the management and control of money appear more joint;
- Male initiated financial management programmes however channel control of information about money to the husband;
- This impact of electronic money is culturally distinctive for it is based on the marital unit being the most important domestic financial unit and money in marriage being joint. In Asia and Africa the family is most often the important domestic financial unit, and money in marriage is more likely to be separate.

## **1.6 Successful Policies are Based on Understanding the Social and Cultural Meanings of Electronic Money**

The absence of such an understanding has contributed to banks' difficulties with the pricing of payment services; a delay in transforming payments instruments and transaction modes; and a potential loss of their central role in payments services. An understanding of the social and cultural meanings of electronic money from the users' perspective would lead to a focus on:

- The need to continue providing for the use of multiple forms of money;
- Ensuring that forms of on-line money have elements that engender trust in the on-line system;
- Working with the cultural distinctiveness of money in the global expansion of on-line payments and services.

---

## 2. Introduction

There has been little study of the way people use information and communication technologies (ICTs) in the home, and particularly of the way they use them to pay for goods and services. The debate on on-line services, payments and transactions has revolved around the issues of supply and technology. This study fills a critical gap by focusing on the use of electronic money from the perspective of the residential user. It also attempts to close the loop between social science and policy research by using the frameworks and methodology of sociology to address questions that are vital for effective policy formulation. At the same time, it is a significant case study of the interrelationship of economic and non-economic aspects of social life.

Few social science studies of ICTs have been able to address questions that are central to providers and regulators of on-line services. This is because there is a mismatch between the questions, perspectives and methodological approaches of the service providers and social scientists. It involves coming to terms with interdisciplinary research, and dealing with the different cultural environments and success measures of academic, policy and industry research (Singh, 1995b). For service providers of ICTs, price and the extent of future markets are the most important dimensions of demand. They are intensely interested in various versions of the question: How much? How much revenue will these new services generate? At how much should the service be priced? How much is the demand? (See Bureau of Transport and Communication Economics, 1995; Lamberton, 1994). Hence much of their market research has focused on these questions, starting from demand for the products they offer, rather than placing their products in people's lives.

For social scientists, consumption is a more meaningful concept than demand, though “relatively few empirical studies have explored people’s everyday experiences of consumption” (Livingstone, 1992, p. 114). The limited studies of the consumption or use of ICTs have been directed towards what they reveal about the family, household, home, gender, social and personal meanings. They have more successfully started from the perspectives of the users, but have failed to relate the social and cultural meanings of ICTs to the issues of demand central for service providers. In this study I use the insights of sociology to address the central questions of the providers and regulators.

This paper is framed by the users’ perspective and the study of money as a social and cultural phenomenon. The users' perspective focuses attention on the way people pay for goods and services, rather than the technologies underlying the new electronic payments instruments. It helps move away from thinking in the banking idiom of payments instruments and transaction modes to *forms of money* which are a combination of payments instruments and transaction modes.

The users are studied in their social and cultural context. This context is central to understanding the user, particularly when it comes to the study of money. This is because money, unlike the dominant view which underlies economic theory and policy, is a social and cultural phenomenon. There are multiple kinds of money, which are qualitatively distinct, in the market and outside it. Money in marriage for instance, is personal, private, joint and nebulous whereas the ideal type of money in the market is conceptualised as impersonal, public, individual, calculable and contractual. The nature of money in particular segments of the market also differs from the ideal type of market money. Money in banking among middle-income Anglo-Celtic married couples in Australia, is characterised by the joint account and is seen as intensely personal and private. This is elaborated in greater detail in Singh (1994).

Money not only impacts on social relations and cultural values as theorists from Marx ([from 1927]1971), Weber (1947, 1978) and Simmel ([1900]1990) have shown, but money is also shaped by them (Singh, 1994; Zelizer, 1994). The empirical study of the meaning of multiple monies demonstrates the interrelationship of the economic and non-economic aspects of social and cultural life. Market phenomenon such as the joint account is central to the meaning of marriage money among middle-income Anglo Celtic married couples. But the ideology of marriage as a partnership and women's increased participation in paid work has contributed to the emergence of the joint account which is one of the main generational changes in banking. The story of the interrelationship will be further elaborated in this paper, as it will be shown that electronic forms of money have influenced the way money is managed and controlled in marriage. This impact of electronic money is culturally distinctive, for money in marriage is not always joint, and electronic forms of money are not always used in the same ways in many parts of Asia and Africa. This is particularly important to remember, as electronic money is increasingly a form of money that has currency across geographic boundaries.

The relationship between the form of money and multiple monies is explored in this study. The qualitative study of money and ICTs led to the discovery that the use of particular forms of money is linked to the content and context of payments. It is an exciting area of research to explore how the content and context of payments is then related to the nature of multiple monies in the market and outside it.

The study thus starts with two sets of questions. They are:

- How do people use electronic money in the home? What factors influence usage?
- How does the use of electronic money influence social and cultural patterns? And how is electronic money shaped by them?

---

### **3. Methodology**

In this analysis of electronic money I draw in the main on two sociological studies of money. The first is the Money On-line study which is part of a broader study of the use of information and communication technologies in the home (Singh, Bow and Wale, 1996). The second is my doctoral study on money, marriage and information, here referred to as the Marriage Money study (Singh, 1994). These are grounded studies in the manner of Glaser and Strauss, that is “the discovery of theory from data” (Glaser and Strauss, 1967, p. 1). This is to be done systematically, so that the theory “fits” and “works” (Glaser, 1978, p. 4). A grounded theory study does not set out to prove or disprove a specific hypothesis. Instead, one begins with an area of study, and in the process of data collection and analysis, one discovers the questions and the key concepts. Data collection, analysis and theory influence each other in a “reciprocal relationship” (Strauss and Corbin, 1990, p. 23). The data for both studies has been analysed with the help of NUD•IST (Non-numerical Unstructured Data Indexing Searching and Theorizing), a computer programme for qualitative data analysis. The process of data analysis is discussed in greater detail in Singh (forthcoming a).

#### **3.1 The Sample**

The Money On-line study is based on open ended interviews with 47 persons from 23 households in Victoria between March 1995 and February 1996. The persons interviewed were sought through convenience sampling methods, while ensuring there were multiple starting points from the personal and professional networks of the researchers at CIRCIT and through accessing the trial sample made available by Telstra after their Power Touch Phone trial. As far as possible all members of the household were interviewed, though in this study only teenagers and adults have been included.

The sample is over-weighted for middle and upper income households who own a personal computer (PC), a modem and use personal financial management (PFM) programmes. Ninety-one per cent of the households had PCs, compared to 30 per cent Australia wide (Australian Bureau of Statistics, 1996). This is because the sample is geared to a study of people using electronic money and on-line services. Hence only 13 percent had a household income of under \$30,000, compared with 33 percent in Australia (Griff, 1994). It is also less representative of Non-English speaking background persons with 13 percent against 25 percent in Australia (Shoebridge, 1995) and does not include anyone over the age of 60. Household ownership of a computer, a modem and the use of PFM programmes was also high as the sample was geared to a study of the use of electronic money and on-line services. The emphasis was on households with children so as to include younger users, more inclined use “new” ICTs (Cookes & Robotham, 1995; Gillard et al, 1995; Madden & Simpson, 1995). The socio-economic characteristics of the sample are enumerated in Table 1.

The Marriage Money study involved open ended interviews with 37 persons from 21 middle-income, predominantly Anglo-Celtic households in a Melbourne suburb I call “Woodville”, between June 1991 and February 1992. They were randomly selected from the local polling list. As far as possible, both husband and wife were separately interviewed. They were compared with 188 low income, non-English speaking background persons (NESB) with literacy difficulties using a questionnaire based survey between November 1991 and April 1992, in an adjacent suburb, I call

“Dreampark”. These persons were accessed through local neighbourhood houses and education centres for the teaching of English as a Second Language.

The socio-economic characteristics of the Woodville and Dreampark sample are shown in Table 2.

**Table 1: Socio-economic characteristics of the Money On-line Sample  
(N=47 persons, 23 households)**

<b>Socio Economic Characteristics</b>	<b>Number</b>	<b>Percentage</b>
<b>PERSONS</b>		
Age		
Teenagers	10	21
20-29	7	25
30-39	7	11
40-49	12	0
50-59	5	13
60+	0	
Not Available	6	
Gender		
Female	21	45
Male	26	55
Marital status		
Married	25	53
Defacto	6	13
Single	12	25.5
Separated/Divorced	4	8.5
<b>HOUSEHOLDS</b>		
Language		
English speaking background		87
Non-English speaking background	20	13
Household income		
Under 30000	3	13
30000--49999	5	22
50000-69999	5	22
70000-99999	4	17
100000+	3	13
Not Available	3	13
Household composition		
Single	2	8.7
Couple only	4	17.4
Couple with child/children	13	56.5
Single with child/children	4	17.4
Urban/Rural status		
Urban	20	87
Rural	3	13
Households with PCs	21	91
Households with modems	13	56.5
Households using financial management programmes	6	26

**Table 2: Socio-economic Characteristics of the Marriage Money Sample**

Characteristics	<u>Woodville</u>		<u>Dreampark</u>	
	N=37	%	N=188	% (valid)
Gender				
Female	19	51.4	124	66.0
Male	18	48.6	64	34.0
Age				
15-24	-	-	21	11.7
25-34	1	2.7	54	30.2
35-44	18	48.6	48	26.8
45-54	9	24.3	27	15.1
55-64	2	5.4	20	11.2
65+	7	18.9	9	5.0
Missing			9	
Marital status				
Single	-	-	22	11.8
Married	34	91.9	152	81.3
Divorced	1	2.7	3	1.6
Separated	1	2.7	4	2.1
Widowed	1	2.7	6	3.2
Missing	-	-	1	
Household composition				
Couple only	7	18.9	22	12.2
Couple & dependent children	18	48.6	58	32.0
Couple, dep. children & adults	4	10.8	36	19.9
Couple and adults	5	13.5	34	18.8
Single person	2	5.4	2	1.1
Related adults	1	2.7	13	7.2
Single parent and dep children only	-	-	2	1.1
Other	-	-	14	7.7
Missing	-	-	7	
Household yearly income				
Above \$50,000	14	37.8	2	1.1
Under \$50,000	13	35.1	105	57.0
Not known	5	13.5	5	27.7
Do not want to say	5	13.5	26	14.1
Missing			4	

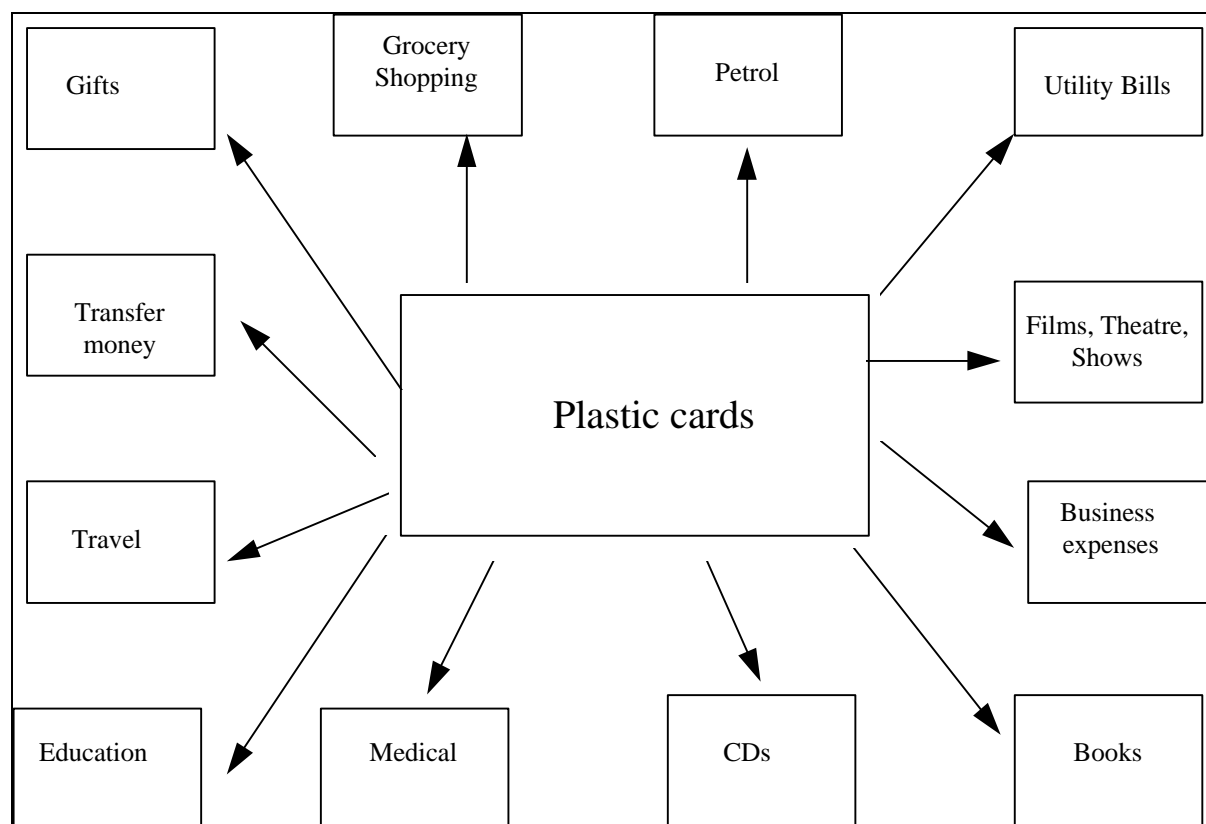
### 3.2 The Users' Perspective

This study starts from the questions important to users, rather than the questions asked by providers. Providers of electronic goods and services recognise the value of the users' perspective for profitability and growth. But as Dervin (1992) points out:

*Almost all our current research applies an observer perspective. We ask users questions which start from our worlds, not theirs: What of the things we can do would you like us to do? What of the things we now offer do you use?... The difficulty is that the data tell us nothing about humans and what is real to them.... (p. 64).*

The research on information and communication technologies (ICTs) in general and on-line services in particular, has placed the technology, service or application at the centre of the analysis. The question, for instance is: How do you use the telephone? How do you use the credit card? What concerns do you have about electronic commerce? This focus on ICTs and on-line services leads to documenting their increasing centrality in people's lives. Figure 1 illustrates how a focus on plastic cards can easily lead to the view that plastic cards are central to a whole variety of purchases. If this is not placed within the context of a person's use of other payments instruments, it can contribute to the argument that we are at the threshold of a cashless society.

**Figure 1: The Providers' Perspective: The Technology Approach**



The focus on technology and products helps emphasise the convergence of digital technologies and leads to the view that electronic payments instruments such as stored value cards and electronic transactions via the telephone, Internet and the PC will replace physical payments instruments and transaction modes. The Australia New Zealand (ANZ) Banking Group's submission to the Financial System Inquiry exemplifies the providers' approach, when it states that ATMs, EFTPOS and now increasingly, telephone and PC banking are making the old "bricks and mortar" bank branch networks obsolete. This trend is set to continue as customers become increasingly comfortable with new technologies and as bank pricing is modified to reflect the relatively lower costs of these channels compared with branches" (ANZ, 1996, pp 28-29). In a similar vein, it says that "Stored Value Cards (SVCs) may over five to ten years largely displace cash payments for frequent, low-value transactions such as convenience purchases" (p. 29). This view of the old being replaced by the new is followed by an examination of the cost of physical and electronic transactions to the bank concluding that "It costs ANZ about six times as much to service a withdrawal across the branch counter as it does through an EFTPOS terminal" (p. 29).

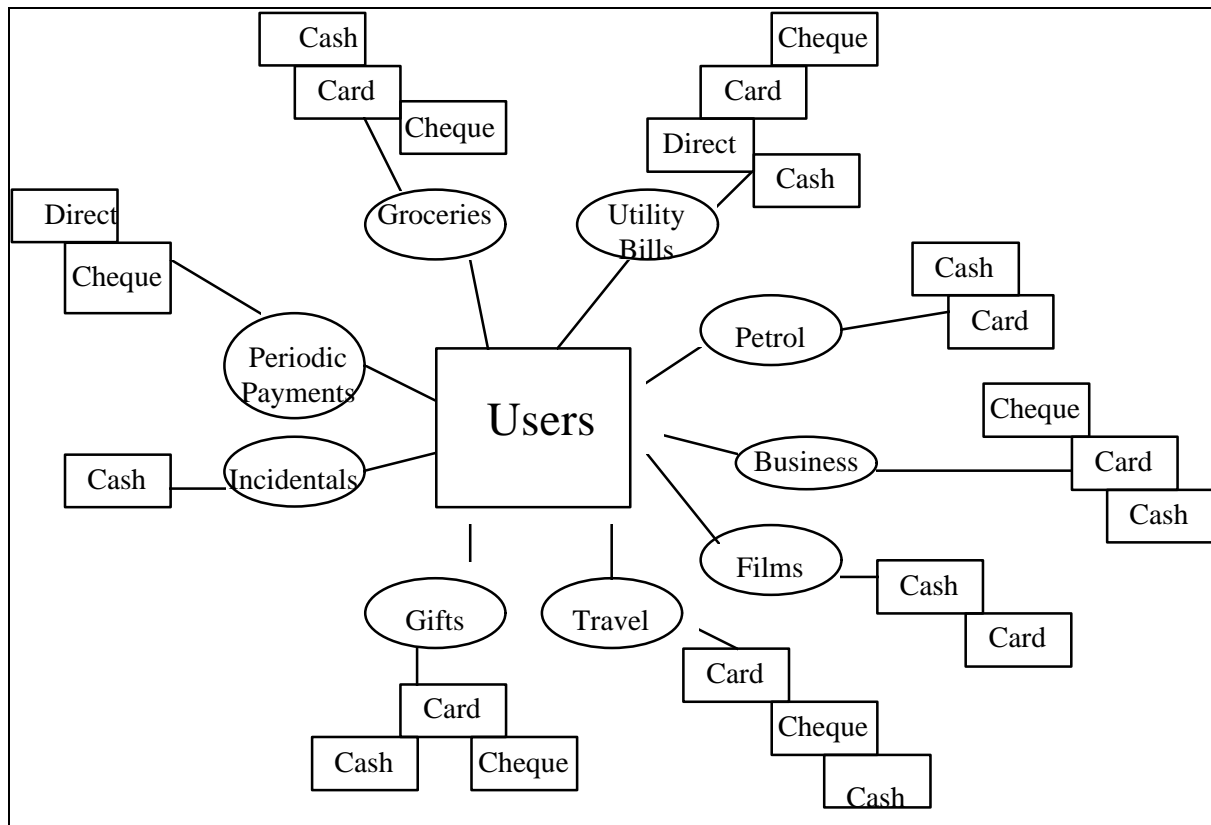
This perspective is important in charting the growth of technologies. However, if this picture is not complemented by one that places the user and his or her activities at the centre of questioning, then it can make for costly misjudgements. As Kyrish (1996) has documented in her work focusing on business and media predictions relating to videotex, online services and Internet from 1981 to 1996, "Predictions that are based on conceptual, normative advantages of technology appear most likely to fail" (p. 26). They rest on assumptions about the take-up of technology which are not based on an understanding of how individual residential consumers use technology. In particular, the judgements about cost of services by the provider are not the same judgements made by the consumer. As the Consumer Credit Legal Centre's submission to the Financial System Inquiry details, with stored value cards, customers may be possibly be looking at issue fees, renewal fees, transaction fees, reload fees, monthly fees, plus transaction charges with EFTPOS and ATMs (Consumer Credit Legal Centre, 1996).

Of late, attention has been directed to the need for providers to recognise that the new information and communication technologies make possible the separate delivery of content, context and infrastructure (Rayport & Sviokla, 1994). This is undoubtedly an important development from the organisational perspective. Banks particularly have to face a future where they may not be in charge of all aspects of payments services. It is not such a major difference for customers, as it needs to be remembered that customers have always been able to separate these three dimensions of a transaction. This is discussed in greater detail in Richardson, Singh and Burke (1996).

In this paper, I submit that understanding about electronic money deepens if we turn the kaleidoscope and study the issue with the user at the centre. Unpacking only some of the activities referred to in figure 1, it becomes clear, that though plastic cards are being used in many ways, cash and cheque remain important for the way people pay for groceries, utility bills, entertainment, education; that direct entry is increasingly important for fixed periodic payments like the mortgage; that cash is often the only acceptable payments instrument for small incidental expenses. This is illustrated in figure 2.

The activity centred approach with the user at the centre, alters the framework and direction of questioning. Instead of dwelling on the convergence of digital technologies, the need is to address the greater diversity of the ways customers pay for goods and services. One has to go beyond banking categories of payments instruments and transaction modes to talk of the way people combine these two into forms of money. And instead of predicting a wholly on-line payments environment, the focus shifts to discovering the factors that influence the ways consumers mix and match different forms of physical and electronic money.

**Figure 2: The Users' Perspective: The Activities Approach**



These user-centred frameworks and questions have to be discovered because so much of the public debate is couched in the terms seen important to providers. Even in this study where the users' perspective was consciously adopted and the stress was on usage rather than supply of services and technology, the initial questions emphasised electronic money rather than people's activities. So the discovery of questions from the users' perspective is an important result of the study, for these questions point to central issues for consumers. In this study, the following important ways of questioning were identified:

1. How do people combine payments instruments and transaction modes? People talk of paying a bill in cash at the post office, mailing a cheque or telephoning a credit card payment. It is understanding this combination of a payments instrument such as cash, cheque or credit card transacted in a particular way, that is over the counter, by mail, telephone or Internet, that is critical for the take-up of on-line services. This question led to a focus on *forms of money*.
2. How do people "mix and match" different forms of payments? What are the barriers to access? How do different persons in the same household use different mixes of forms of money?
3. How do forms of money match the content and context of different kinds of payments? People pay for groceries in different ways when compared to the way they pay utility bills, business expenses, gifts and holidays. This differs yet again from the way they pay for their mortgage. So what makes one form of money generally suitable, while excluding others?
4. Forms of money yield information which differs in timeliness, range, record and context. So given access to different forms of money, a person chooses the form which matches the information required by different kinds of purchases. The question then is: How does the timeliness, range, record and context of information help match forms and kinds of money?

5. This focus on information reveals that Internet money is different from previous forms of physical and electronic money. This is because the transaction context of Internet money is virtual and impersonal. Hence it is particularly important for providers of electronic commerce to ask: How do people deal with money that is virtual and impersonal?
6. This leads to identifying the different factors that contribute to a person's sense that information is reliable. This is a combination of previously enumerated dimensions of information, together with security, privacy, previous personal and familial experience. In different ways, they lead to a person having trust in the system. The issue of trust emerged as a central question as the question proceeded, for in the area of electronic commerce, it is essential to ask: What factors contribute to a person's trust in a particular form of money?
7. As the user operates within the social and cultural context, it is important to ask: How does the use of electronic money shape and be shaped by social relations and cultural values? In particular, how does the use of electronic money and personal financial management programmes influence the way money is managed and controlled in marriage?
8. This in turn leads to the question: What is the cultural distinctiveness of Anglo-Celtic electronic money? How does the usage of electronic money in other cultures differ across cultures in Australia and the region?

These questions differ from the questions with which the Marriage Money and the Money On-line studies began. The two studies answer these questions in different measure. The questions also lead to other relevant studies which contribute to the understanding of the use of electronic money. In the following section, I show how these questions from the users' perspective provide an understanding of the use of electronic money in the home.

---

## 4. Use of Forms of Money

### 4.1 Forms of Money

In order to illuminate the way people use money, one has to go beyond the use of payment instruments such as cash, cheques and plastic cards and transaction modes such as branches, ATM (Automated Teller Machines) and EFTPOS (Electronic Funds Transfer at Point of Sale). These categories are important for banks to assess their products and delivery of services. However when people talk of using plastic cards, they often go on to specify whether they use them across the counter, or give the number over the phone, mail, fax or the Internet. This combination of a payments instrument and the mode of transaction is the *form of money*. Understanding this combination is critical for providers of on-line services, for it allows them to package the transaction mode and the payments instruments in diverse ways.

Forms of money can be broadly grouped as physical and electronic, depending primarily on the transaction medium used. Physical forms of money include physical payments instruments and physical transaction media. They comprise cash and cheques transacted person-to-person and across the bank branch or post office counter. Cheques sent by mail also belong here. Plastic cards transacted physically across the counter or by mail are situated along the continuum between the physical and the electronic forms of money. Electronic forms of money include those that involve physical payments instruments such as plastic cards - credit cards, debit cards, stored value cards, smart cards, direct debit and credit; and the electronic versions of cash and cheques currently being trialed. The main transaction modes are electronic. Figure 3 represents the different forms of money which result from the various combinations of payments instruments and transaction modes.

The categories of physical money and electronic money are “ideal types”. When one speaks of electronic money, there is the assumption that it is virtual money, that is, it is not physical, it is not tangible and cannot be held and touched. This is true if one compares currency and direct debit or credit. Moreover, the success of particular forms of electronic money such as EFTPOS cash and EFTPOS direct debit, rests on the fact that there is a physical record and it is able to yield physical cash. So one has the situation that physical money like cash may have no physical or virtual record; whereas electronic money obtained from the ATM and EFTPOS is accompanied by a physical record and tangible cash.

Thinking in terms of the various forms of money has two results. First, it reminds one that payments have not always been transacted, even in the past, solely within the banking system. Though data on payments has come primarily from the banking sector, person to person transactions, payments at the post office, the use of mail, phone and fax have been equally if not more important than the use of bank branches, ATMs, EFTPOS and direct entry. For instance, Australia Post claims to be Australia’s “biggest over-the-counter electronic bill paying and agency banking service, handling more than 150 million transactions each year” (Australian Payments System Council, 1996). What is different today is that it is possible to source both payment instruments and transaction modes in the non-banking sector via the use of stored value cards, e-cash, and the Internet. Moreover, financial management programmes used by the consumer can now process, package and project this information in more numerous ways. Information and communication technologies have increased the diversity of forms of money. Instead of leading to substitution, it has made for more ways of combining payments instruments and transaction modes.

Second, an emphasis on forms of money allows us to more clearly recognise that a new form of *Internet money* is emerging. Internet money is money that uses the Internet as the main transaction mode. It uses existing payments instruments such as credit and debit cards; direct debit and credit; together with electronic versions of cash and cheques. Internet money is different from previous forms of money in two ways. Firstly, many of the transaction mechanisms and payments instruments are being generated from outside the banking system. Secondly, unlike the earlier electronic money - that is cash obtained via the ATM; cash paid through EFTPOS; or payments over the counter by using a physical plastic card - Internet money is impersonal and virtual. It is consumers' comfort with these two dimensions of Internet money that will influence its use and at least to some extent, the success of on-line interactive services.

**Figure 3: Forms of Money: Combining Payments Instruments and Transaction Modes**

<b>Form of money</b>	<b>Payment instrument</b>	<b>Mode of transaction</b>
<b>Physical forms of money</b>		
“Real ” cash	Cash	Person to person Bank branch, post office
“Real ” cheque	Cheque branch/Post office, mail	Person to person/Bank
<b>Electronic forms of money</b>		
Direct entry		
Bank direct	Direct debit/credit	Written instruction to bank
Phone direct	Direct debit/credit	Phone
Internet direct	Direct debit/credit	Internet
EFTPOS direct	Debit card	EFTPOS
Credit direct	Credit card	Written instruction to payee
Electronic cash		
ATM cash	Cash; plastic cards	ATM
EFTPOS cash	Cash; debit cards	EFTPOS
Internet cash	E-cash	Internet/email/phone
Electronic wallets	Stored value cards	Person to person; ATM; Internet
Electronic credit		
“Real” plastic	Credit card	Person-to-person
Mail plastic	Credit card	Mail
Phone/fax plastic	Credit card	Phone/fax
Internet plastic	Credit card	Email; Internet
Electronic cheque		
ATM cheque	Cheque	ATM (deposit)
Internet cheque	Electronic cheque	Internet

An emphasis on forms of money leads directly to the next important question: How do people “mix and match” these increasingly diverse forms of money?

## 4.2 Mixing and Matching Forms of Money

A focus on the ways Australians pay for goods and services, shows that cash, cheques and the branch remain the central payments and transactions mechanisms. The macro picture shows that despite a fast rate of growth in electronic payments and transactions, 22 years after Bankcard was introduced in Australia and posted to bank customers and 16 years after the first bank ATM, physical forms of money continue to dominate.

- Cash remains the most popular and convenient way of paying for everyday transactions of small value in Australia. Though there is no hard evidence, it is estimated that some 90 per cent of the number of transactions are in cash (Bank for International Settlements, 1994, p. 8).
- The cheque is the most popular form of non-cash payment in Australia. In 1995, its volume (38 percent) exceeded that of credit cards (10 percent) EFTPOS (13 percent), ATM (17 percent), direct entry credit (18 percent) and direct entry debit (4 percent) (Mackrell, 1996, p. 4).
- Though high-value electronic funds transfer is now for the first time higher in value (63 percent) than cheques (35 percent), cheques continue to dominate over retail low value electronic funds transfer which remain unchanged between 1991 and 1995 at 2 percent (Mackrell, 1996, p. 5)
- Payment by cards is increasing, but it still comprised only 0.1 percent of cashless transactions in value, and 15.4 percentage by volume (Bank for International Settlements, 1994, pp. 46, 48)
- The number of ATMs and EFTPOS outlets is increasing in Australia. However 60 to 66 per cent of all banking transactions are still conducted through branches (Head, 1996a & 1996b).

It is difficult to go beyond this picture to detail the use of these different payment and transaction mechanisms. As the Australian Payments System Council notes in its latest 1994-1995 Annual Report, "... limited data are available on the number of payments, and there is limited detail on the relative usage by consumers of different payment instruments" (Australian Payments System Council, 1995, p. 41). There is no data on the public record about the way individuals use forms of money, that is the way they combine different payments instruments and transaction modes.

### 4.2.1 Barriers to access

Socio-economic factors like income, literacy and education are important for drawing the outer limits of access to bank accounts, plastic cards, personal computers and modems. The latest figures on the public record show that:

- An estimated one tenth of Australian adults have no bank accounts (Singh, 1992);
- Nearly a fifth (18 per cent) of Australian adults have no credit cards (Kavanagh, 1996). The Marriage Money study shows that two-thirds of the low income Non-English speaking background persons with literacy difficulties had no electronic access. Only 17 percent had a cheque account, so the rest were wholly dependent on cash as a payment mechanism.
- Though household ownership of PCs is rising, 30 per cent of Australian households had computers and 6.9 per cent had modems in February 1996 (Australian Bureau of Statistics, 1996, p. 15). These figures mask marked differences in adoption among socio-economic groups (St Clair, 1996).

Poor access to bank branches and ATMs is also a limiting factor in some rural areas. The Money On-line study shows this is pushing people more to the use of EFTPOS and cheques. Cheques cashed at grocery stores or service outlets continue to be an important method of obtaining cash, as Abbie's story shows.

#### **4.2.2 Abbie's story: Cheques and dairy farming**

Abbie<sup>1</sup>, 42 lives on a dairy farm with her husband and three children aged 3 to 13. They have an annual household income of \$24,000 and have recently bought a PC which is mostly used by her daughter for school work.

She says she uses cheques, cash and then EFTPOS in that order. She uses cheques for bills, supermarket shopping, any local shopping. She says:

*Well, if anyone will take a cheque I'll give them a cheque, even if I'm not local. If I'm buying something say over \$50 or something, and I'll ask if they'll accept a cheque.... Most people do.*

With other bills, she mails the cheques if they are not local. But if they are in the nearest town, she says:

*I'll just drop it in to them, say the chemist or the newsagents. And the telephone I do at the post office and the (electricity) at the post office or the bank.... Medical doctors I pay personally too, by cheque...*

She pays by cheque for petrol too if she is not getting petrol from the station where they have a farm account. At times, she uses the cheque to get cash, for she can cash a cheque for the groceries plus \$100 at the local shop. This usage of cheques also means that there are the cheque butts for the accountant. She says:

*I know that you probably get records with everything else too, but just originally I suppose when we started farming which was 15 years ago, cheque butts were what they were really looking at.*

This is partly a result of the way she and her husband have organised their banking. They do not have a card attached to their main cheque account in which they deposit their farm wages. It is their subsidiary account that has the card link. Abbie says, "EFTPOS isn't everywhere.... and there's no machine to put my card in locally." So even the ATM she has used only when she was in Melbourne or Sale.

Abbie's story shows the importance of geographical access to physical and electronic facilities in influencing the use of particular forms of money. Income, education and household composition are important for noting barriers to electronic access. However, these socio-economic factors are less useful, for predicting how any one individual mixes and matches different forms of money. They do not explain why persons of the same socio-economic group, and even members of the same household, mix and match forms of money in different ways. An examination of a high income professional household illustrates the complexity of the mix of forms of money at a personal and a household level.

---

<sup>1</sup> The names of the persons described have been altered to maintain confidentiality.

### **4.2.3 Goldie and Gordon's household: Cash, branches and the Internet**

Goldie and Gordon are professionals in their 50s. Gordon has just retired from his academic job and now has his own consultancy practice. Their annual household income is now more indefinite, but remains over \$150,000. When they were interviewed they had their son Gary, 31 and his wife Gwin, 30, staying with them temporarily, while they were in between houses. Gary and Gwin's combined income is between \$70,000 and \$80,000.

Gordon and Gary work in the Information Technology area and are expert Internet users. Gordon has set up a Local Area Network at home with an access point in each bedroom. The laser printer is in the family room. Goldie also uses the computer extensively in her work, and she recently was introduced to the Internet by her son Gary. She used it to plan a holiday in France. But she does not see herself as a computer expert. Gwin, Gary's wife is only minimally interested in computers, though will use them as a tool when needed.

The way they mix and match forms of money is depicted in figure 4. The common forms of money they all use are "real" cheque, "real" plastic and bank direct. Though Goldie has booked holiday accommodation in France via the Internet, and Gary has ordered on the Internet, neither have used Internet money.

Goldie's pattern differs from the others in that she has never used the ATM or EFTPOS to obtain cash. She continues to withdraw cash from branches about once a fortnight. She says she likes the physical dimension of the transaction and having a person at the branch. "I wouldn't be sure the bank was really going to transfer the money just if I was pressing a few buttons on a wall", she says.

She also has a personal preference for cash. She carries about \$100 with her, saying she "fears" being without cash. She likes the physical and writes a lot of cheques; transacts with a credit card only across the counter.

For her, cash and groceries have gone together since the early days of their marriage when they were on a "careful budget (and) housekeeping took all we had". The budget was then tight enough for her to know that they had two shillings for meat a day. So they ate a lot of lamb chops. Now, her need to know is confined to paying for food by cash, so that she knows it is paid for. She has used credit cards twice for grocery shopping, and says she was "quite unhappy about it" because she does not like "paying for basics with a credit card.... Credit cards are for luxuries, for entertainment, clothes, not for going to the supermarket." She however does not mail, phone or fax her credit card number.

Gordon is unlike his wife Goldie in that he uses the ATM even to deposit cash and cheques. He seldom goes to a branch and depends on Goldie to give him his \$20 a week in cash for incidental expenses. He does mail his credit card number, though would not fax or phone it. And like Goldie he rarely uses EFTPOS.

Their son Gary uses EFTPOS often, though he is like his father in that he seldom goes to the branch. He uses the ATM to get cash as he travels to places where they do not use electronic money. Gary will buy on-line but will not pay on-line, for he says he is "very sceptical about making credit information available to anyone." He will fax his credit card number if he is dealing with somebody he knows. It is not the money that needs to be physical, but he wants a physical record and personal interaction. A receipt in itself is not sufficient for him to feel comfortable. He says that even when he is ordering something by fax, he rings up to get the name of the person who is going to pick up the fax. So then he can write "Attention such and such" on the fax.

Gary's wife Gwin also uses the ATM and EFTPOS. She mails and phones in her credit card number. But she also likes going to the branch and getting cash or depositing money in her passbook savings account. She prefers using cash "so I know exactly how much is in there and how much I've taken out and I don't have to rely on statements." Not only is the physical dimension of cash important, but she gets more immediate and extensive information about the money spent and the money in hand, than she would get if she paid via EFTPOS. She says, her need to track the money would depend "on what sort of money you're talking about... If it's \$50 it probably wouldn't matter so much. If it was \$500, then I'd want to keep track of it."

Goldie and Gordon's story shows how differently people in one household use forms of money, even when they have potential access to the full range of physical and electronic forms of money. Given these differences within one household, the question then is: What factors influence the way people mix and match different forms of money?

**Figure 4: The Mix and Match of Forms of Money Used in Goldie and Gordon's Household**

<b>Person</b>	<b>Form of money</b>	<b>Transaction mode</b>	<b>Comment</b>
Goldie	"Real" cash	Only from the branch	Fears being without \$100 in her bag. Felt unhappy about using plastic for food
	"Real" cheque	Will not use the ATM Mail or over the counter	Does not see it as "real"
	"Real" plastic	Person to person No phone plastic No mail or fax plastic	Will not put her credit card number on anything
	Bank direct	For regular bank payments	
Gordon	ATM cash	ATM Rarely uses EFTPOS \$20 cash a week that Goldie	Is comfortable depositing cash through the ATM. Gets by on hands to him
	Plastic cheque ATM		Deposits cheques through the ATM.
	"Real" cheque		Most payments are by cheque
	"Real" plastic		For business expenses
	Mail plastic		Rarely for food, though liquor will be on it.
	Bank direct		For regular payments
Gary	Plastic cash	ATM and EFTPOS Rarely goes to the branch	Needs cash specially when he travels to smaller towns and rural areas. This accounts for one-third of his expenditure
	"Real" cheque		
	"Real" plastic	Over the counter	Only for paying municipal rates, utility bills and subscriptions. One-third of his expenditure
	Mail plastic		Credit cards account for a third of his expenditure
	Fax plastic		Only when he is dealing with somebody he knows
	EFTPOS direct		For groceries
	Bank direct		Regular payments for loan repayment
Gwin	"Real" cash	Has a passbook account	Uses cash for 50 percent of household expenditure in terms of value
	Plastic cash	ATM, EFTPOS	Uses this a lot as she is not close to the payment facilities
	Phone plastic		
	Mail plastic		
	Bank direct		Regular payments for loan repayment

## 4.5 Forms of Money Match Kinds of Money

Money has most often been seen purely as an economic phenomenon, as part of the market. It has been seen as homogenous, distinguished purely by quantity, impersonal, and calculable. This utilitarian view of money has been challenged by recent sociological work on money, where money is analysed as a social and cultural phenomenon, which not only impacts on social relations and cultural values, but is itself shaped by them.

This social and cultural framework of money leads one to investigate multiple kinds of money in the personal and domestic domains, as well as in different segments of the market. One kind of money cannot always substitute for another kind of money, because some monies have meanings which are particular to them. As Zelizer argues, "Not all dollars are equal" (Zelizer 1989, p. 343).

This view of money fits with the empirical observation that each household deals differently with various kinds of domestic money, such as housekeeping, discretionary spending, utility bills, gifts and allowances. Money is received in various ways, such as the wage; through business; as allowances or social security payments. This not only influences the flow of money but affects the way the money is used. The household also deals with other kinds of market money such as tax, investments, superannuation payments, mortgage payments. These monies are ideal types, for most domestic monies have a market dimension, and different kinds of market monies have some similarities with domestic money.

Money from different sources for particular purposes is differentiated or earmarked. At the simplest level, it is a budgeting measure, where a person puts in money in different jars for different purposes. The Marriage Money study shows that persons use financial institutions, bank and credit card accounts to separate these different kinds of money. So it would be that money from wages would go into a joint account in one bank, whereas overtime money may go into another joint or personal account in another bank or the same bank.

The Money On-line study reiterates the importance of multiple credit cards separating information and records of different kinds of money, particularly separating personal money from business money; tax-deductible expenses from non tax-deductible expenses. It also points to the important role of financial management programmes such as Quicken and Money as separating tools. Brad, in his 40s, who lives in rural Victoria and has a consultancy and farming business with his wife, says that he uses his PFM programme to separate his personal finances from his two businesses. And within the personal, it separates his income and tax deductions from his wife's income and deductions. This takes away the necessity of having separate accounts, so that there is one account to reconcile, but separated information.

The need to separate different kinds of money however goes beyond a budgeting and planning requirement, for sometimes money from one source is only used for a specific purpose. For instance consultancy money or overtime money could be set aside only for holidays or discretionary expenditure, while wages are used for everyday and fixed expenditure. This is clearly seen when some kinds of money like an inheritance have ritual meaning which goes beyond its quantitative value. This is also dramatically seen in the way money is arranged and decorated in bridal payments among the Simunuls of Sabah (Singh, 1984) and in ritual presentations of cash in the Chinese *ang-pow* packets.

Payments instruments are also significant separators of money. This is immediately evident in the way cash is used for what is seen as small amounts of expenditure, and the credit card or the cheque is used for large amounts. The Money On-line study also shows there is a strong

congruence between forms of money and kinds of money. This is tabulated in detail in figure 6, but at this point it is important to note that:

- “Real” cash, ATM cash, EFTPOS direct and EFTPOS cash are used with grocery payments, while credit cards and cheques are not generally used;
- “Real” cheques, and “real” cash are the most popular way of paying for bills. According to Australia Post - one in four of all household bills such as water, gas, electricity, rates, vehicle registration etc. are paid at post offices - these bills are paid equally by cheque and cash (Terry Stephens, National Manager, Agency and Financial Services, Australia Post, at the Australian Payments System Council meeting, Sydney, 16 February 1996);
- “Real” cash is most often the only acceptable form of money for both the merchant and the consumer, for incidental expenditure such as parking, photocopying, buying items of small value. It is also the only permitted form of money for gambling in Australia;
- Direct debit is the preferred way for paying for periodic payments such as the mortgage;
- “Real” cheques, EFTPOS direct or “real” plastic are used for tax deductible expenditure;
- Business income at the household level is most often received by “real” cheque;
- Children’s allowances are paid in “real” cash;
- The credit card, where possible, is the preferred way of paying for large items of discretionary expenditure;
- Internet plastic is used for paying for books, CDs and software ordered over the Internet.

#### **4.5.1 Paying for groceries**

It is interesting to take a closer look at the congruence between grocery shopping, “real” cash, ATM cash, EFTPOS cash and EFTPOS direct. For grocery shopping, cash is the reference point, whether the cash is obtained via a branch or an ATM. There was nobody in the Money On-line sample who did not use cash for grocery shopping, though there were two persons who did not use EFTPOS direct. Cheques too are not generally used for grocery shopping when cash or EFTPOS direct is available. Only Abbie, whose story has been told, regularly used cheques for grocery shopping.

It is clear that credit of any kind, is not generally used. In the Money On-line study, two women in two of the 23 households said they had bought groceries on credit. Both began to use their credit card for groceries, to accumulate Fly Buys points. However, the feeling against using credit for food is so strong that one of these women has recently stopped, and has gone back to EFTPOS direct.

The strong cultural norm that food must not be bought on credit also prevents Abraham, a dairy farmer from having food purchases deducted from the milk payment cheque. Buying groceries from the same company that buys the milk from him, not only would take away his option to shop cheaply elsewhere, but it would get him into credit. He says he and his wife Abbie:

*...thought it can be a bit of a trap... All of a sudden there’s this huge hole in the milk statement. Particularly in the early years, we didn’t have much money and it was really hand to mouth ... You could really do damage to yourself.*

This congruence between cash and grocery shopping and incidental expenses and women's role in these activities contributes to the popular notion that women have a special affinity for cash. This is an historical perception, for anecdotal historical evidence suggests that in the parental generation the women, if they had accounts, had passbook accounts, while the men were the ones with the cheque accounts. In the Money On-line study, of those who ranked their choice of forms of money, there were 7 men and one woman who said they seldom used cash and 6 men and 10 women who ranked cash as the most important or second most important payments instrument. Each of the seven men who did not see cash as important associated the use of cash only for incidental expenses. For the six men for whom cash was important, two said it was an important part of doing business; for one it was the only way he could pay for goods and services in the rural and remote areas he had to visit; one used it to keep down debts and two were teenagers who only used cash.

#### 4.5.2 Gambling with real cash

Gambling is also distinctly identified with cash. This cash can be obtained in any number of usual ways, though there are restrictions on the placement of ATMs and EFTPOS outlets at gaming avenues. In Australia the use of credit for regulated gaming and gambling is prohibited. It is also not general practice for banks to allow direct debits to gambling providers from customers' accounts. Against a general background of not being able to use debit cards by mail, phone or fax, direct debit has generally been through an account with a gaming and gambling provider or agent, and have transactions deducted from that account. That account can be set up with cash, cheques or money orders.

In the Money On-line study, the most usual gambling activity was buying scratch tickets or Tattsлото, and this was done in cash. This did not come out of a particular gambling budget, but was seen as part of household shopping or incidental expenses. It confirms AGB's research (1995) which also indicates that people resist marking out a gambling budget. It notes that:

*For the majority of people, no special budget was set aside for gambling related expenditure. Most participants mentioned that this money came out of weekly living expenses. A couple of people called it "fun" money, whilst others felt the money on gambling was a substitute for not smoking or drinking" (p. 8).*

It goes on to elaborate that "For most participants the amount of money invested on gambling per week was never thought of as a certain proportion of total income" (p. 9). For some, it is what is left over each week (pp 9-10). On the whole they estimate that "Approximately one thirds of the respondents suggested that their betting money came from a budget" (p. 33). This figure was much higher than DBM Consultants' (1995) estimate that only 3 per cent of adult Victorians have a specific gambling budget item. The remaining 97 per cent were more likely to gamble with money from:

- Housekeeping money/living expenses 45%
- Personal/household expenditure 22%
- Savings 18%
- Other sources 12%

The first two kinds of money are also associated with cash, strengthening the association of gambling with cash.

John Mortimore, General Manager (Commercial) Tattersall Sweep Consultation, explains that part of the reason for not having a gambling budget, is because people do not see buying lottery tickets, or scratch tickets as gambling. There is no skill involved and by and large, they do not spend large sums of money. He says their best information suggests that Lotto - which makes up 75 per cent of the Tattslotto business - is played more by blue collar, older males going on a Saturday to buy the paper. Average expenditure is \$10 a week and comes from the man's pocket money. Scratch tickets comprise 12 per cent of their business and are bought more by females who are younger and white collared. Average expenditure is \$2 a week. It is money saved during shopping, and spent on indulging oneself with a lottery ticket. In both cases they are within the context of shopping and are habitual activities. ( Personal communication, 31 March 1995)

## **4.6 Information Connects Kinds And Forms Of Money**

One of the important reasons for the congruence between forms and kinds of money is that forms of money yield the information that is required for different payments and income streams. A person has more scope for choosing when he or she is paying, rather than when he or she is receiving payment. This is because wages, pensions and benefits are now increasingly being directly credited to the bank, and the choice there is to specify the bank, rather than say you want the money in cash or cheque.

The information dimensions that are important for the congruence of forms of money and kinds of money are those that relate to timeliness, range, record and context. The questions behind these information dimensions are: Does it give immediate information or deferred information? Is the information on money spent or also money still in hand or in the account? Is the immediate record evidential, discretionary, that is one can have a record or not have a record, or is there no record? Is the transaction context personal or impersonal, physical or virtual? It is these four information dimensions which will be explored in this section, for they mark out possible forms of money which are used for specific kinds of payments and monies. These three dimensions are tracked for the forms of money in figures 5 and 6.

Cash transacted physically or electronically gives immediate information about money spent or received and money in hand or still in the account. It can yield a discretionary record in that one can ask for a receipt, or if one does not want a record, a cash transaction is the most untraceable of all transactions. Cash received via the ATM and EFTPOS, that is ATM cash and EFTPOS (cash out), most often automatically generates a receipt. With ATMs, there is immediate information about money in hand and money still in the account, but the personal transaction element is missing. EFTPOS is similar to getting cash from the branch in that there is a person across the counter, but unlike the ATM it does not give information about money still in the account. This is one of the reasons that people who are uncertain about the sufficiency of funds hesitate to use EFTPOS.

Cheques differ from cash in that with a cheque you do not immediately get informed by the bank about the money still in the account. Unless one is confident about one's own information systems, a person has to wait for the statement to come to know how much there is in the account, or check at the ATM after a suitable interval to allow the cheque to be cleared. But with a cheque payment, you can prove to the authorities or the recipient, that you did send the cheque and if it is cashed, track it down in your statement. The credit card transacted across the counter, also has the

immediate evidential aspect to the record. However, there is an implicit hierarchy among the forms of money as to which form is seen as more evidential, with the cheque ranking first, followed by the credit card and then by EFTPOS. It is this greater authority for a cheque record that makes it popular for paying bills.

Cheque and credit card payments over the counter add the physical and personal context to the transaction. The plastic card transacted by mail, phone or fax does not have this physical and personal context, but it does yield a discretionary record such as a copy of the letter or fax, or a receipt number which can be used as a reference point for tracking a transaction. Direct debit or credit via the bank, that is "Bank direct" differs from cheques in that it does not give immediate information about the money spent. That is why direct credit is more often used for regular periodic payments, where the amount of money spent is known and certainty of payment is required.

As with forms of money, different kinds of payments also require varied information. As discussed in an earlier section, with grocery money, the most immediate need is to know how much you have spent, and how much is left. This information is particularly important if the person is operating within a very tight budget or needs to control the flow of money. For most persons, there is no need to account for this money to an outside party. However the attraction of EFTPOS is that it offers a record of expenditure for budgeting purposes and for monitoring the flow of money from joint marital accounts. Similarly for incidental purchases, where the amount of money involved in each transaction is seen as inconsequential, there is not the same need to keep a record. When paying business or domestic bills, the need however is for an evidential record. This is one of the main reasons for the continued popularity of cheques. The congruence between information, kinds of money and forms of money is depicted in Figure 6..

**Figure 5 Information Dimensions of Forms of Money**

Forms of Money	Information Dimensions										
	Time		Range		Context				Immediate Record		
	Immediate	Retrospective	Money spent or received	Money in hand or still in account	Personal	Impersonal	Physical	Virtual	Evidential	Discretionary	Untraceable
Real cash	Y		Y	Y	Y		Y			Y	Y
ATM cash	Y		Y	Y		Y	Y		Y		
EFTPOS (cash out)	Y		Y		Y		Y		Y		
E-cash	Y		Y	Y		Y		Y	Still being trialed		
Real cheque	Y		Y		Y		Y		Y		
Plastic cheque	Y		Y			Y		Y		Y	
Electronic cheque	Y		Y			Y		y	Still being trialed		
Real plastic	Y		Y		Y		Y		Y		
Mail plastic	Y		Y			Y	Y			Y	
Phone plastic	Y		Y			Y		Y		Y	
Fax plastic	Y		Y			Y		Y		Y	
Net plastic	Y		Y			Y		Y	Still being trialed		
Bank direct		Y	Y	Y		Y		Y	Y		
Plastic direct		Y	Y			Y		Y	Y		
Phone direct	Y		Y	Y		Y		Y		Y	

**Figure 6: Information, Kinds of Money and Forms of Money in the Household**

<b>Kinds of money</b>	<b>Forms of money</b>	<b>Information</b>
Grocery shopping	“Real” cash ATM cash EFTPOS direct EFTPOS cash	Spend money you know you have - so no credit cards Know how much you have spent Know how much you have left - not with EFTPOS direct No need for evidential record - cheques are used mainly in rural areas where there are few branches, ATMs or EFTPOS outlets
Bills (Utility, Medical, children’s education and activities)	“Real “ cheques Phone plastic “Real” cash Bank direct Phone direct Credit direct	Need an evidential record Personal surety that payment has been made Ability to initiate and track payments Option to pay on credit “Real” cash is used if there is no cheque account, or to lower transaction costs when paying in person. Also when income flow is small and irregular Phone direct when have forgotten to pay the bill on time
Incidentals (eg casual parking, photocopying, telephone calls, lunch money, pocket money)	“Real” cash Disposable stored value cards	Often the only acceptable form of money to the payee
Transport fares	“Real” cash	Often the only acceptable form of money to the payee
Petrol	“Real” cash EFTPOS direct “Real” plastic	Able to spend what you have budgeted Record for budgeting or evidential purposes Deferred payment with evidential record Pay in cash if they don’t accept your credit card
Holidays	ATM cash “Real” plastic	Need periodic access to cash Deferred payment with budgetary record Expected type of payment for certain accommodation

Entertainment	“Real” plastic Phone plastic “Real” cash ATM cash	Deferred payment with budgetary record Phone plastic is the only way to pay for shows booked by phone Gaming and gambling is not permitted on credit Cash for restricting expenditure
Books, CDs and software	Phone plastic Fax plastic Internet plastic Mail plastic “Real cash” ATM cash	Deferred payment with evidential record Choice of transaction mode fits with ways of ordering
Other discretionary expenditure (clothes, shoes, large ticket items etc)	“Real” plastic EFTPOS direct “Real” cash ATM cash “Real” cheque	Deferred expenditure with record EFTPOS rather than credit card Cash for purposes of limiting expenditure Cash is at times the only acceptable form of money for the merchant Use cash to negotiate a better deal Cheque is only sometimes acceptable to the merchant
Tax deductible expenses	“Real” cheque “Real” plastic EFTPOS direct	Evidential record Expected form of payment as with business trips, conference registration
Periodic payments (Mortgage, Insurance, Car Lease)	Bank direct “Real” cheque “Real” cash	Certainty of payment having been made and received When income flow is small and irregular
Investments	“Real” cheque	Evidential record
Wages	Bank direct “Real” cheque “Real” cash	Certainty of payment having been made and received
Business income	“Real” cheque	Evidential record
Children’s allowance	“Real” cash	Only possible way of paying as yet

A focus on information dimensions shows the distinctiveness of Internet money, for unlike previous forms of money, it is virtual and impersonal in context and often in its record.

## 4.7 Internet Money Is A New Form Of Money

Internet money is e-cash, electronic cheques and plastic cards transacted over the Internet. It differs from earlier forms of money in that it is both impersonal and virtual. It is impersonal as there is no identifiable person at the other end of the transaction as with physical cash, cheque and plastic or with EFTPOS direct. It is virtual as it is not associated with a physical payments instrument like cash and cheques, nor does it result in physical cash as with ATM or EFTPOS withdrawals. Internet money also does not automatically generate a physical record which is evidential in nature. The closest approximation to Internet money is using the plastic card over the phone, fax or mail. But the phone, fax and mail are less impersonal and virtual than the Internet, for with the phone, fax or mail, the potential for personal interaction and a physical record of transaction, is greater. In other respects, it gives the same kind of information as its physical counterparts. It gives immediate information about money spent or received. E-cash like "real" cash will also tell you how much money there remains in the account. It is hard to say how evidential would be the record generated by the Internet.

Internet money is as yet not generally used in households that have Internet. In the Money On-Line study, 13 of the 23 households had modems and Internet access. Fourteen persons from 11 households spoke of whether they have or would buy on-line goods and services and whether they would pay for them on-line. They split neatly in the middle with seven persons saying they have or would pay with Internet money and seven saying they would not. The seven who said they would were all men. Of these, five of them had already used Internet money for purchasing books, magazine subscriptions, CDs, software and information services from the United States. Two used debit cards and three used credit cards on the Internet to pay for the goods.

The gender dimensions got muddled when one looked at the seven who said they would not purchase on the Internet, as there were three men and four women in this group. Age was not a determining factor in the usage or non-usage of Internet money, as the ages in each group ranged from the 20s to the 50s. All of them were from medium to high income households. Neither of the two households with an income below \$30,000 had access to the Internet at home.

Though the lower cost of on-line payments are at the centre of industry discussion, these do not rate a mention as a reason persons give for going on-line with their payments. The reasons mentioned by the users are convenience, speed and the ability to track the different phases of their transaction - for instance whether the CDs are out of stock and there is going to be a delay; whether they have been posted or not. The users also mention that they are not worried about the lack of security, as physical systems are perhaps more insecure. This contrasts with those who do not use Internet money, for they are primarily worried about the security of their transaction and their information. These concerns are coming at times from the virtual and impersonal context of Internet transactions, which to a lesser extent also prevent some of them from transacting with a credit card over the phone or fax.

As Internet money is at the centre of on-line payments for electronic commerce, I present the stories of Bob who is an enthusiast and Ryan who is not. There is little that distinguishes Bob and Ryan in terms of computer and Internet expertise. Ryan is younger than Bob, and at present, with his wife out of paid work, Ryan has a lower household income. The main difference though is in the kind of trust they are willing to place in the system of on-line payments.

#### **4.7.1 Bob's story: Buying books from Boston but paying by cheque at the post office**

Bob is an academic and an expert Internet user. He is in his late 40s, early 50s with a household income of more than \$A80,000 a year. For the last six years or so, he has been using email, and in the last year or two, he has been purchasing on the Net. The day before the interview, Bob had subscribed to an on-line information service from Colorado. He also buys books from Boston, and has previously bought software on-line.

He says he has "no concern" about using his card on the Net, for he considers his risk to be limited to \$A50, because of the terms of agreement with the bank about his credit cards. He is not worried about security on-line, for he says, "we have no knowledge about the security of the systems which the EFTPOS uses... My guess is that it's secure but I've got no knowledge about security." However, with the book store in Boston, he has set up two accounts - one for books for a consultancy project, and the other for books for home. That means he only needed to send his credit card number once. Part of the comfort of dealing with this particular bookshop is that Bob has physically bought in the shop, and he has previously dealt with them by fax.

The most attractive thing about on-line purchasing for Bob is that it is generally cheaper; it arrives faster; often it is not available in Australia and it can be ordered instantaneously. He says, "If I see a reference to a book, I can put in my email message, and boom, I've done it within a minute. I don't have to ring anyone up. I've done it. It's happened. And then within a few minutes I get a response back ... saying they've got my order."

He thinks that in the future, payment for on-line services will become "less intentional". He says, "You know it's a bit like the credit card... It's a bit different from handing over cash... You're removed from the payment.... It has a different meaning .... It makes it easier to make a purchase. You don't have to look and say, `Well, how much have I got here?'" With on-line purchases, Bob thinks we "will be tied into a payment system that will be just like a credit card."

This willingness to pay on-line goes with his use of EFTPOS for cash withdrawals, and the ATM for depositing cheques. He says, "Almost all my cash withdrawals almost always come from when I do my supermarket shopping with EFTPOS. So I take \$A200 out of my account in cash." As for deposits, his salary is directly credited to the bank. He also receives some cheques every month. He says, "I write the deposit slips out and put them in my wallet and when I'm passing a bank I use the ATM for when I just walk up and pull out the card."

He however uses the bank branch and the post office for paying his utility bills by cheque. He says, "I save them all up and then, when I'm going down to the shopping center near me, I will just do the rounds. I will walk from the post office to the bank... maybe sometimes two banks to pay the bills." He doesn't pay by phone even on the occasions that he is paying by credit card. This is because he then doesn't have a record. "Cheque butts are my record. I use them when I do my tax at the end of the year." He says it is not really "rational", but he pays at the post office or the bank partly to save postage and the cost of the telephone calls. He says he knows he does not pay a fee for his cheque account, but had not considered that he pays a withdrawal tax every time he writes a cheque.

#### **4.7.2 Ryan's story: Concern with security**

Ryan, 36 is in information technology. He and his wife are expecting their first child and their household income is between \$A50,000 and \$A60,000. He is a regular user of Internet for information and communication and has advertised things for sale on his newsgroup. After the initial electronic communication, the transaction was completed physically with the buyer coming over to pick up the goods and pay him the money. He has also bought computer equipment through that newsgroup. That transaction was also completed physically, with physical delivery and payment.

Ryan says he is happy to use the Internet for the first stage of purchase. He says:

*I'm happy to buy things (on the Net)... but I'm not happy to actually put credit cards (on the Net). I don't think it's secure at this stage. I have put my credit card on it, but only to ... a particular bulletin board. It was secure because it was actually not on the Internet. It was a direct line.*

He has often given his credit card on the phone, but he sees that as more secure than advertising it electronically. However he does not use telephone or on-line banking and very rarely pays his bills with the credit card over the telephone. He says:

*It's just as easy to go to the bank. I usually have three or four bills like gas, electricity, rates, whatever. I just go to the bank and pay them all off. Sometimes I go to the post office.*

He also goes to the branch probably once a week for cashing cheques or transferring and depositing money. Other than bills, he prefers to use EFTPOS where it is available. He uses his credit card when he runs out of money or when a retailer does not take EFTPOS. Cash is reserved for things that are of "minimum value".

Bob and Ryan's stories show the complex factors that go to build a person's trust in a particular form of money that is used for a specific kind of payment. It is these factors that will be explored in the next section.

### **4.8 Forms Of Money And Trust**

A person's comfort with the use of Internet money, as with other forms of money depends upon a person's trust in the security and reliability of the system and his or her control of the particular transaction. However, as Samarajiva (forthcoming) notes, "Little is known about how to create a trust-conducive environment based on interactive media systems" (p. 11). The virtual and impersonal nature of the Internet transaction heightens the issue of security. This has led to voluminous discussion of the technological and legal underpinnings of a secure payments environment. These are necessary conditions, but in themselves are not sufficient conditions for usage, for transactions not only have to be secure but must be seen as secure. Banks have been persuading customers to deposit in ATMs, but without much success. In Australia, the estimates are that only one or two percent of deposits are made through ATMs, while in the United States, even with the new generation ATMs, the figure is said to be five per cent (Allard, 1996).

David Bollier reporting on the Aspen Institute Roundtable on Information Technology, notes:

*It may be conceptually useful to distinguish between issues of “hard trust,” which involve authenticity, encryption, and security in transactions, and issues of “soft trust,” which involve human psychology, brand loyalty, and user-friendliness .... it is important to see that the problems of engendering trust are not simply technical in nature.... Trust is also a matter of making psychological, sociological, and institutional adjustments” (1996, p. 21).*

This trust can take a long time and may need a variety of “warranting structures”. However some of the factors that help build this trust are the speed with which orders are filled; being able to accurately account for the transaction if need be; a willingness by the seller to rectify errors; voice contact at the order taking stage; and lower prices (Bollier, 1996). These are important supply side criteria and contribute to the user feeling in control of the transaction. Analysis of the Money On-line data indicates that from the users’ perspective, it is this ability to control the transaction that makes a person more willing to use a form of money. Trust and control are intertwined, for trust in the system leads to a sense of being in control, and being in control leads to a feeling of trust.

This sense of control comes from the presence of at least one of the following factors:

- A physical payments instrument and/or record of payment;
- A personalised transaction context;
- Ability to track and substantiate a transaction;
- Ability to determine his or her desired level of privacy;
- Favourable experience of the form of money;
- Knowledge of the service provider and/or the recipient.

The importance of each of these factors has much to do with psychological factors. This is as true of Internet money as it is for the use of direct debit via EFTPOS or depositing through the ATMs. An unpleasant experience with a form of money however often prevents the person trying it again. In the Money On-line study, Abbie and Abraham who are dairy farmers now write themselves a cheque out of the farm account, and personally deposit it straight back into the bank. Abraham says:

*We tried doing it as an electronic transaction, you know within the bank a couple of years ago. And a couple of times it didn’t go through and we bounced cheques. And I thought I’m not doing that again. So we haven’t bothered to do it again.*

Their experience was buttressed by that of their friends. Abraham says, “Through no fault of their own, they got threatening letters from people... Yeah, for the cost of a cheque it’s just as easy to know you’ve done it. ”

All the above factors do not need to be present for information to be seen as reliable. However, the Money On-line study shows that one or more of these factors explains why a person chooses one of a range of forms of money, while avoiding other possibilities. The actual choices also have much to do with personal preferences and family patterns. Goldie for instance “fears” being without cash and says her grandmother was not comfortable stepping out of the house unless she had 200-300 pounds on her, that is the equivalent of \$1000 in her purse. Fred, whose story will be told below,

says it is more “rewarding” having cash. These psychological factors are undoubtedly important, though not the focus of this study.

Lisa’s story below shows how the physical and the personal dimensions of information help control information about the transaction and engender trust in the system.

#### **4.8.1 Lisa's story: Cash, cheque and direct debit**

Lisa, is a professional and a single parent in her 40s, with a household income of between \$60,000 and \$70,000. She says her preferred way of paying bills is by cheque. She once paid a telephone bill by phone, “because it was incredibly hideously overdue.” She also has direct debit for her mortgage payment, health insurance and her son’s school fees. But with the variable payments, she likes “having control over writing a cheque” She says she goes through the process of getting the cheque, and then, “I put the sum in my cheque book and I have a balance and I know exactly where I am. There’s no money coming out of my account that I don’t know about.” She then counts off her direct debit periodic payments that come out of her main account into which her salary is directly credited, but says, “I know they’re taken out. I know what they’re for and so, at any time, I know exactly how much money I’ve got.”

It is this desire for control over information about her money that also endears cash to her. She says:

*I get a certain amount of cash out at the end of the week and I try to live on that... I usually fail and have to get just a little bit more, but in a sense that is still setting a bit of a (boundary)... What I've got is a funny combination of a working class cash economy... I like the immediacy of that.*

She tracks her money by adding things up as she goes along. She also keeps track of it:

*... by looking in my purse to know how much money I've got left until the end of the week. I look into my cheque account to see how much money, cash in general, I've got.... And the one thing that gets out of control - but I almost think that I've set it up so that it can get out of control - is my VISA card.*

*I try and keep, but I don't succeed, but theoretically I keep all of my Visa 'thingummies' together in one place until I get the statement at the end of the month, so that I can track down exactly how much I've got that I owe there as well.*

*Yes, it is important to me that I know exactly how much money I've got. I've always got money in the bank and I still get anxious about money.... It seems to me that it's a kind of set of values that you grow up (with) and that's the way I manage, it's partly the way I manage my anxiety. I don't mean I'm totally anxious about money. I just mean that I'm conscious of it. I like to control it. I actually get anxious when I spend money so it's good if I do know exactly how much money I've got, because then that information, if you like, counters my anxiety.*

After talking about her need for control, she says, “That doesn’t make sense, now that I’ve said it. I think I must enjoy writing out the cheque and putting it in an envelope and posting it.” Previously she used to pay them in at the bank branch and get ‘incredibly het up because I’d forget and carry

(them) around." Then somebody told her to send them off with a stamp, and now she does that. But she still hesitates to ring up with the credit card payment, but says:

*Somehow, I feel as if I don't have as much control over it. And I don't like these direct debit, you know, where you tell the gas company it can take it out each month. I don't like that idea. I guess, I feel if it's an amount which you query - they've taken it out already, so you've got to fight to get it back. I've never queried and never fought to get anything back in my life. It's the principle of the thing.*

These stories show how trust and control are intertwined, and how the issues of "soft" trust, as Bollier defines it, are furthered by the presence of the personal, physical or familiar. It demonstrates the importance of personal history and preferences in the choice of forms of money. This is in itself a subject that needs to be studied in greater depth. In the next section, I show how the cultural and social context of money has influenced the use of certain forms of money among middle-income Anglo-Celtic married couples.

---

## **5 Electronic Money As A Social And Cultural Phenomenon**

In the previous sections I have analysed the way the individual residential consumer uses electronic money. It is important to place the individual in his or her social and cultural context, because the economic and non-economic aspects of social life are interrelated. The use of electronic money shapes and is shaped by social relations and cultural values. Direct credit and credit cards have changed the way married couples access and get informed about money. Given the culture of the joint account, it has already changed the way money is managed and controlled in middle-income Anglo-Celtic marriage. Information rather than access has become a more important factor in the way money is managed and controlled. The linking of the personal financial management programmes such as Quicken and Microsoft Money, with on-line banking not only has the potential of changing the way banking is done, but also altering the control of information about money in the household. This will depend on who uses the PC to monitor information about money.

### **5.1 Electronic Money Changes the Management and Control of Money in Marriage**

Electronic money has changed the way middle income Anglo-Celtic married couples manage and control money. Traditionally control of money was ensured by restricting access to money and information about money in the household. This was true for the whole wage allowance system of money management, more often associated with the lower income groups, where the husband (usually) gave all or part of it to his wife usually in cash. It was also true for the housekeeping system of money management, found more often among middle income couples, where the husband would give the wife a set amount of money for housekeeping. The husband managed the money that was left and had overall control (Edwards, 1984a & 1984b; Morris, 1990; Pahl, 1989; Wilson, 1987). This was accompanied by a lack of information, for in the past, particularly with the housekeeping system of money management, the woman did not always know how much her husband earned (Komarovsky, 1962; Morris, 1990).

Electronic money offers greater access to money and information about money. Direct crediting of wages, pensions and benefits to joint accounts and access to the ATM, EFTPOS and the credit card makes it possible for both husband and wife to withdraw money from the joint account or to have personal credit linked to it. The new technologies also increase the available information on income, expenditure and money still in the account, to partners with a joint account. Direct credits give a paper record of money coming in because of wages or other payments, so detailing income. The ATMs not only generate a record of bank transactions but also are able to give the balance for the account. Credit cards and EFTPOS itemise expenditure. These statements have the added advantage of supplying the answers without the need to ask the spouse about his or her income, transactions and expenditure.

The Marriage Money study shows that electronic money has been one of the factors that has made for a greater framework of jointness for the management and control of money in marriage. As seen in Table 4, it is mostly wives who continue to manage the money. However the housekeeping and whole wage systems of management have been replaced by wife management or joint management. Money among couples below the age of 65 is now more jointly controlled than before, with the

husbands controlling money less often than in the parental generation. However, if one follows Vogler and Pahl's (1993) lead to look for the dominance within the framework of jointness, husband control becomes more evident, though still less than in the parental generation. This is partly because women continue to be less informed than men about money in the bank, and have less confidence in their ability to deal with money in the market.

**Table 3: Pattern Of Change In Money Management And Control In Woodville: The Below 65s And Their Parents (N=16 couples)**

Money Management	Generation	
	Parental	Couples below 65 years
Housekeeping	9	-
Whole wage	2	-
Wife	-	9
Joint	1	4
Independent	2	1
<b>Money Control</b>		
Husband	11	5
Wife	-	2
Joint	1	7
Husband Controlled		4
Wife Controlled		1
Jointly Controlled		2
Independent	2	-

Note: Missing cases = 2

Husbands' greater control of information about money is likely to be increased by the greater use of PFM programmes like Intuit's Quicken and Microsoft Money. A survey of Quicken usage - which at present stands at over 100,000 users in Australia - shows that it continues to be dominated by middle and high income males with male usage being 81 per cent of the total. Nearly half the users (48 per cent) use Quicken for home and business finances, with sole home use having the edge (29 per cent) over sole business Only (22 per cent). It is however a tool most used by self-employed persons (49 per cent). The ages of Quicken users range widely, with the largest percentage concentrated in the 35-44 year age group (Personal communication, Greg Wilkinson, Managing Director Intuit Australia, 3 September 1996).

### **5.3 Financial Management Programmes - Are They Making Money More Male?**

The growing alliances and competition between the providers of personal financial management (PFM) programmes such as Quicken and Microsoft Money and financial institutions, particularly in the United States, is a foretaste of the developing competition for the payments business. One of the payments scenario for banks is that in the future a player like Intuit could position itself between the customer and the banks, so that banks would lose their direct relationship with the customer (National Australia Bank, 1996). In Australia, Quicken and Money are stand-alone information monitoring and management packages, even though Quicken is linked to online banking through one bank. The emphasis to date has been on examining the impact of these programmes on banking. It is equally important to see how the use of PFM programmes at home to record and track money is changing the control of money in marriage.

In the Money On-line study, PFM programmes were used in 6 of the 23 households for personal finances, with five using Quicken and one using Microsoft Money. They were medium and high income households, and five of the six households had modems. However only one of the six was connected to an on-line banking service. In all six households, the initiative to go on Quicken came from the man who was self-employed. For two, the man was or was going to be self employed, but the propelling factor was the need to manage retirement income. When the PFM programme is used by one person to input and track household money, then it is easier for him or her to control the money. When both are inputting and querying the program, then it has the potential of being an additional impetus towards jointness. I examine the influence of Quicken in some detail because it is one of the important gateways to banking and payments on-line.

Three case studies are discussed. The first is Jean and John's story. Retirement and a change in income flows led to the greater use of Quicken by John, which in turn changed their pattern of joint management and control of money to joint management and husband control. The second is the story of Isabel and Indra. It shows there is nothing inherent in Quicken that moves management and control to the male partner. Both Isabel and Indra use Quicken to record and track income and expenditure and use it as a planning tool. That joint engagement with the information has helped make their money more joint. The third story is that of Fred who uses Quicken as a business tool as do three other households. Fred uses it to record, make traceable and plan business finances. He has suggested to his wife that they move all their domestic finances also on to Quicken. This at one level increases the separation of information about domestic and business monies, but at another blurs the boundaries in terms of management and control. It also has the impetus to restructure banking arrangements and the use of forms of money.

#### **5.3.1 Jean and John: Retirement, Quicken and husband's control of money**

Jean and John are in their mid-40s and they are proficient users of the PC and the Internet. Jean is keener on EFTPOS than John who prefers paying in cash. Jean uses a couple of hundred in cash a week, but thinks it is a "nuisance" and sees the greater use of stored value cards as a "ripper" idea. Both continue to use branches on a regular basis to deposit cheques, restructure their banking arrangements, and John uses bank branches to pay bills.

Both left their jobs with large pay-outs in the last couple of years. Jean who left earlier, invested hers in starting her consultancy business. John has more recently left and is now putting in place a financial structure for retirement income, as he hopes not to work any more. They remain a high income household with an income of more than \$100,000. However, they have moved from two wages to one business income and one wage and now to a business income, investment and pension income.

This has meant they are dealing with different kinds of money. John is particularly conscious of this, for he says, going from a wage to a pension and dividends has made him much "tighter" with money. He says their investment decisions have meant that expenditure is greater than their income from business, investments and pension at present, whereas before there was always plenty of money. So though the money is there - and they are now dealing with larger sums of money than before - it is being invested in their superannuation. This has made present money unavailable till he is 55. And he says the rest of the money, even though it is partially in lieu of income, he does not see as a regular income. So he doesn't "really want to spend it." He is going to wait and see. If they run out of money, he says, "I'll have to get a job."

The management of this money also has changed because as Jean says, "It is a large sum of money. You've got to be a bit more careful how you manage it." It is also going in more streams than before. After leaving his job, he set up their own superannuation fund, a family company and a family trust. This was in addition to dealing with the accounts from Jean's business and their personal investments. The need was to record all of these monies for tax purposes. Also different now, is his need to track these monies. "I've got to watch it", he says. "Before, it didn't matter much. We had a few bank accounts and some (money) floating around." Now with these new financial arrangements, they have had to rearrange their bank accounts - have accounts for super, others for the trust fund, business, in addition to joint and separate personal accounts.

John had begun to use Quicken three years before his retirement to record their investments. Now he is using it to record all their income and expenditure. He says, "I don't know that we'll keep it up, but I just wanted... to get an idea of our spending so we can budget." He has kept some of the standard Quicken categories which deal with bank accounts and tax, and then went on to create fine categories to track expenditure in detail. They keep a little book to record expenditure, and then John inputs it into Quicken every day. Jean herself does not use Quicken.

This change in income and information flow has changed the management and control pattern in their house from joint management and control to joint management but husband control. Before John retired, Jean would keep all the accounts for her business, using a programme called Best Books. Now John has taken over all the account keeping for her business though she has the hard copies. Jean no longer knows how many accounts they have and says, "John knows all the details. You're better off asking him."

She sees that information is an important ingredient for the control of money, but says, that John "monitors it very effectively. ... So he knows what's getting our best returns and so on... " She says "Figures and all these things, it just doesn't interest me. And John quite likes it. So he can do it." She says, she spends the money, John manages it. "I just take money out of accounts... He worries about whether there's enough in there or not."

### 5.3.2 Isabel and Indra: Quicken, defacto partnership and jointness

Isabel and Indra are a defacto couple in their 20s and work in the field of design. They are planning on getting married. Isabel is working at present in her partner's business. They have no children, and have a household income of \$30,000 to \$50,000. Both are comfortable with computers through their work and they have a PC at home and were getting another one the day after the interview. Isabel's preferred way of transacting is via EFTPOS. She says she has "almost no cash" except when she goes shopping and wants to limit her spending. She says she has no distinct preferences for "It's all money to me." Neither of them have a credit card.

Isabel says they have begun to think of their money as joint, as their expenditure is now joint, and their money comes from the same business. But they continue to have separate accounts. Isabel says they are thinking of getting a joint account and have not decided as yet whether they will retain their separate accounts. They are also planning on getting married.

The decision to use Quicken was Indra's decision. He says, they use it at present as a record keeping tool, to accurately document where all their money is going. He intends in the future to use it to "look at how we're spending and what we're spending on and then create a budget. That will be as we sort of move into saving for a house and things like that."

For Isabel, the move to Quicken was more difficult. She recognised they needed to budget and see where their money was going. But for her, it brought up the issue of ceding control. It crystallised a break from her previous pattern of money management and control. In her previous relationships, she was the main earner, and she was the one who did the budgeting and made all the financial decisions. In this relationship, Indra earned more.

She says, putting her finances on Quicken:

*was a really big step for me.... It was a big emotional thing. I had to really get around it.... to actually relinquish that responsibility and control... I really had to sort of work through it. And eventually I sat down and put all my figures down on Quicken and now we tend to do it together. Like, we'll actually sit down in front of the computer together and do it.... So we both end up at the end of the month with a bank statement and budget receipts... And so, I'll sit down and... balance my account, and he'll sit down and balance his account.*

They have been doing this for the last six months and are finetuning their budget. She says that Quicken helped make for more joint planning:

*Having it on the computer was a really important part of it. Because when we talked about money previously, we worked in really different ways. I can actually sort of keep mine in running balance in my head. I'm better with figures than Indra is. So I could work out a budget and sort of say blah, blah, blah, and I'd have... a running tally of what was going on. And Indra would be lost like two seconds into the conversation... (He) didn't understand why certain things were happening... He actually needs to write everything down. He's an extremely visual person, which is why the computer really works for Indra.*

It is working for Isabel also. The discipline of doing it every month helps, but even before she would write down everything she spent in a column in her diary. She says she doesn't know why she did that, but she wrote down everything she ate too. Says, "It's just a weird control thing...."

about having control and self discipline." The difference however is that Quicken works for her as a planning tool. She says,

*We did it backwards. Instead of planning where my money would go, I would actually review where it had gone.... It was all retrospective....I just liked to know where money would go.... I never constructed a budget to sort of take me into the future.*

### **5.3.3 Fred's story: Quicken and the traceability of business and domestic money**

Fred has his own business dealing with Intelligence Systems. He is married, with three children ranging from 9 to 15. It is a computer literate household, with a local area network of three computers at home. He says he came to use Quicken because his business was in "fairly muddy waters". Two years ago, he was handing his accountant a couple of boxes of invoices and receipts and it cost a lot of money to get it sorted out. So initially he went into Quicken to record and sort out different categories of income and expenditure.

He found it user friendly unlike earlier accounting packages and is now primarily using Quicken as a way of keeping control of the money and only secondly as an accounting tool. It has also become a valuable planning tool, for it allowed him to identify where the revenue is coming from, and where it is being spent. He says, before Quicken, he guessed where the revenue was coming from. He says:

*I thought I knew. You get cheques. You put them into the bank. But it's proved to me having had a successful twelve months with Quicken, that you can be misled into thinking that one particular area is producing more income than another.... It surprised me certainly.*

The information he got from Quicken was different from the information in bank statements. Quicken produces visual information, it has immediate traceability and you can query the report. It is like a presentation, in that "You can immediately from the records retrieve and produce visual charts... You can readily query the report whereas with a bank statement, that's all you've got."

He sees traceability as the essential characteristic of controlling information about transactions. That is the biggest plus of on-line transactions. He says:

*If I saw something going wrong with the accounts, I'd know the same day almost certainly because I enter transactions as they occur. And the more on-line I am the more traceability I've got. The more validation I've got.*

He now enters every transaction into Quicken, and has separated it into domestic and business expenditure. Much, though not all, of the distinction is tax related - if it is tax deductible it is business. The categories are finer for business, whereas with domestic expenditure he groups some transactions and has divided them up into ten large categories. It has been such a useful analytic tool for business that he is hoping to apply it to the domestic sphere also to increase the "traceability on domestic expenditure.

Fred's enthusiasm for Quicken is not matched by his experience of on-line transactions. He has not purchased anything on-line. He signed up for an on-line banking service when it was being established. Speaking in May 1995, he says he has some "significant misgivings" about it:

*They did advertise the feature of transfer which is still not implemented and that to me is the basic requirement.... It's proved really to be unsuitable at this point in time, but only because all it does is duplicate what I'm already doing.*

He does all his withdrawals and deposits for his business and home, electronically. He is not keen on EFTPOS, for it doesn't offer credit, and they don't need it as an account keeping tool as they use Quicken. He pays domestic bills by telephone, but is not into telephone banking, for he says, "it was just too security orientated... too many passwords to get in." He says these passwords are to protect the bank rather than the customer.

He would like to try stored value cards when they come out, but for domestic expenditure, he thinks they will "always have a dependency on cash." At present, 60-70 per cent of their domestic expenditure in terms of value is in cash. His feeling for cash, he says, is also "ideological", keeping the government out of business. He says, cash has:

*...been a cornerstone for the economy and business and there is absolutely no doubt that a lot of cash transactions go on that are just one step above barter... There's a lot of business done at the cash level and rightly so.*

He and his wife jointly control the money at home, he says, with each controlling designated areas. "There has never been a situation ... where we've both paid the same bill.... It's just inconceivable... She controls all the domestic expenditure with the exception of insurance and rent." At present, his wife keeps track of the domestic transactions manually, though she will input transactions into Quicken and do queries of the accounts. She however, won't deal with on-line transactions at all. Fred is suggesting to her that they track their domestic expenditure on Quicken, because it gives their finances added traceability. He thinks she will agree, for:

*...she's seen the results....This blockage people have about using applications is going away. It's sort of press, click, pictures... And the traceability is automatic, the visualisation is automatic, the analysis is automatic.*

These stories reveal the impact that an information and management tool can have on the way money is managed and controlled in the home. They also show that it is a tool that is shaped by its use. When used jointly, it can make jointness more effective. When used only by one of the partners, it is likely to move control of information about money to that partner. At present this is more likely to be the husband as more men use Quicken. The latest Australian Bureau of Statistics (1996) data also show that more men use PCs than women.

It is important to note that these case studies are urban, and in the main concentrate on home rather than business finances. Julianne Stewart's study of cotton farmers in Queensland suggests that the impact of farm management programmes on the control of information is very different. Among the 20 families she has studied, it is the women who are computer literate and used to keeping the books. They have taken to using farm management programmes - 9 use Phoenix, 4 Quicken, 4 Cash Magic and the rest a mix of others. The women have the financial information but their husbands most often have the farm management information. The men are hesitant about ceding this information. The challenge for the women is to devise ways of getting the husband interested in computers so that they can jointly use the programme for the financial management of the farm (Personal communication, Julianne Stewart, 2 September 1996).

## 5.4 Cultural Distinctiveness of Money

It needs to be remembered that electronic money is being used in a particular cultural framework. This is particularly important because electronic money is seen as a global phenomenon, with great potential in Asia Pacific and in Africa. However, knowledge of the use of electronic money is based on Western experience, and more particularly the Anglo-Celtic experience.

In Australia, much of the social impact of electronic money in the home is mediated through the marital joint account, as roughly three-fourths of married couples in Australia have a joint account. This in turn is the result of a generational change in the ideology of marriage, women's increased employment. The information about income and expenditure is accessed jointly, because the marital couple has a joint account. The joint account visually marks the marital unit as the most important domestic financial unit, for the joint account is always between husband and wife and not between parents and adult children. Hence money in marriage, that is marriage money is also the most important kind of domestic money for middle-income Anglo-Celtic Australian married couples. This is a comparatively recent phenomenon, even for Anglo-Celtic culture. In the United Kingdom and United States, historical studies suggest that marriage money became the most important kind of domestic money only within the last century (Gillis, 1985; Kaplan, 1985; Zelizer, 1989).

It is important to ask how different boundaries of domestic money and different ways of dealing with money in marriage will influence the use of electronic money, and its social impact. A cross cultural focus on money, particularly in Asia and Africa, suggests that marriage is not always the most important marker of domestic money in all cultures. The family or household unit, is the more pertinent boundary of domestic money. The different boundary around domestic money in Asian and African societies needs to be placed in the wider context of women's access to land in particular and the ability to earn a livelihood in general. The importance of the family or household as the financial unit is also related to the ideology of the family; the kinship system; the composition of the family or household unit; and the presence or absence of welfare provisions in different countries. This is discussed in greater detail in Singh (forthcoming a).

Money within marriage is not always joint. Blumberg (1991) cautions that it is important to recognise that the "separate pot" system of money management is more common in the world than the "common purse". This is especially true where polygamy is prevalent and/or marriages are unstable (p. 122). Marriage money in Yoruba society is an apt illustration. A study of Yoruba conjugal units in Lagos, Nigeria showed that almost 78 per cent of the wives did not pool their incomes or jointly plan expenditures with their husbands, as marriages were often unstable (Papohunda 1988).

A cross cultural approach to money also shows that the assumption that there is an opposition between money and personal relationships, between money and the gift, could be peculiarly Western. In some societies, money in a particular form, is the only expected gift at a particular occasion. This is true of the *ang-pow* at Chinese New Year. In Malaysia, banks not only distribute the traditional red envelopes for the *ang-pow* but also ensure they have a supply of crisp new notes during Chinese New Year. In Japan, the preference for clean notes has also migrated to the electronic world where some ATMs deodorise and clean the notes before delivering them. Recognising the cultural distinctiveness of the social impact of electronic money is particularly important as electronic money and commerce increasingly penetrates non-Western societies.

### 5.4.1 Electronic money in Malaysia

An examination of the use of electronic money in Malaysia (Singh, 1995) shows how the development and use of electronic money is dependent on the country's banking and payments system and the patterns of management and control of money at home. In 1995, the main thrust of the payments system was to make cheques more trustworthy and to set the legal framework for the rights of customers of electronic banking. This was happening without any user data, as to how people use cash, cheques or electronic money.

Like Australia, there is little user data as to how people use forms of money. In Malaysia, cash is popular for historical and cultural reasons. Cash is popularly regarded as the opposite of credit, so for those who want to avoid credit, the option is cash. It is also popular because cheques are not generally acceptable and are confined to business payments. In Malaysia, accepting a cheque speaks more of one person trusting another, rather than trusting cheques as a payments instrument. As Lim Peng Khoon, Senior Manager Services, Hongkong Bank Malaysia Berhad says, "It is not like the UK where you can cash your cheque for 50 quid" (Personal communication, 31 December 1994).

The use of credit cards has increased. Before 1988, credit cards were marketed only to the rich, and having a credit card was a sign of being a person with a high income. Then Citibank offered it to everybody with a qualifying income of RM18,000<sup>2</sup> a year and it transformed the credit card into a more middle-income payments instrument. However it also brought with it a worrying misuse of cards by the young and by business persons using it as bridging finance. Debit cards are not as popular. In Singapore, there is a policy push towards debit cards as persons with an annual income of less than \$S30,000<sup>3</sup> cannot get a credit card, only a debit card.

Electronic transaction networks are growing, with ATMs growing in number. In 1993, this did not translate to a decline in the number of branches, for in the rural areas, the central issue is often one of extending the banking habit rather than converting people from physical forms of money to electronic forms. It has to be noted however, that even in the urban areas, the use of ATMs does not always translate to speed and convenience. One bank executive when asked about his banking patterns, said the ATM was a waste of time, for he generally asks his secretary to withdraw money from the bank. It is this common use of third party encashment activities that is not catered for by the ATM.

EFTPOS, introduced in Malaysia in 1986, has not become an accepted way of paying for goods and services. This could be because of a confusion between a debit and a credit card, or a cultural preference for credit over debit. The main drawback in 1994 was that there was not an integrated electronic network linking all the banks. That meant there had to be a battery of cards and EFTPOS outlets. Part of this lack of popularity is also a result of Bank Negara restricting foreign banks from having a large retail structure. If there is one network and persons are allowed cash-out via EFTPOS, the foreign banks will have an effective transaction network without the branches.

Electronic money is by and large an urban phenomenon. Its social impact is very different from that among middle-income Anglo-Celtic married couples, for in Malaysia, joint accounts are not the norm. Feedback from two individual banks suggests that only 35 per cent of their credit card holders have supplementary cards for their spouses. This also links in with a different ideology of marriage and patterns of asset ownership. The family home is most often owned only by the

---

<sup>2</sup> On 22 September 1996, one \$A was equal to RM 1.98.

<sup>3</sup> On 22 September 1996, one \$A was equal to \$S1.11.

husband unless the wife has financially contributed to its purchase. Home loans, when they are subsidised by the government or other employers, are also in one name.

This also reflects the options available in the banking system. Generally a person opens a bank account near their place of work. So if the husband and wife are employed in different places, they have different accounts. This is not only because of physical convenience, but also because an employee is not always free to choose the bank to which his or her salary is directly credited.

These aspects of Malaysian usage are not uncommon in other parts of Asia. In India too, there are the same issues of bank computerisation; the influence of the banking structure on the choice of forms of money; lack of choice of the bank where the salary is deposited; the use of third parties to do the banking transactions and the dominance of separate accounts rather than joint accounts. To this have to be added the large variations in access between urban and rural areas; between those with literacy and those without; and between different income groups. These set different ground rules for the provision and regulation of forms of money.

---

## 6. Implications for Policy and Strategy

An understanding of these social and cultural meanings of electronic money from the users' perspective would add a much needed dimension to government policy and providers' strategic approach to electronic banking and commerce. It would allow regulators and other policy makers to focus on different aspects of the two broad issues in electronic money - access and trust.

In terms of policy, these two issues subsume under them the related matters of choice, cost and availability on the one hand and the issues of "hard trust" such as security, privacy, consumer liability, dispute resolution on the other. These are issues that require national and international coordination as is made clear in studies of privacy and security (Tucker, 1995). For providers too, the essential challenge is to ensure that customers continue to have the diversity of forms of money they would like and that they trust the new electronic forms of money. Thus it is in their interest to set up or cooperate in the establishment of "warranting structures" and codes of practice. The growth of electronic banking and electronic commerce depends to a large extent on sorting out the frameworks of security, privacy and liability at a national and international level. But providers need to go beyond these necessary conditions to address the issues of "soft trust", the social, cultural and psychological factors that make a person feel comfortable with a particular form of money. At present these user, social and cultural dimensions are missing in the policy and industry debates.

### 6.1 Policy Implications

The Financial System Inquiry has been an important peg for the articulation of policy issues relating to payments and the new technologies. There is no dispute that the new technologies are going to change the characteristics of payments. There is however a difference in the approaches of different policy bodies, depending upon their portfolios and their assessment of the nature, speed and significance of the change.

The Reserve Bank of Australia's assessment is that as yet, Internet and computer mediated banking have had no significant impact on the payments system. Stored value cards are being trialed, and it is sufficient at this stage to monitor the trials and keep a close watch on local and international developments. The Reserve Bank points out "The vast bulk of retail payments pass through well-established retail payment systems - cash, cheques, direct entry, credit cards, debit cards and EFTPOS" (Reserve Bank of Australia, 1996, p. 68). It points out that technological innovations have led to:

*excited assertions that the payments system as we know it is under challenge and that banks will become irrelevant. These claims are not at all well-founded. Many confuse the fundamental nature of payments - a transfer of value from payer to payee - with the operations of the payments process (p. 69).*

It says that most Internet payments are:

*simply another way of authorising a conventional credit card payment. The payment is processed through the credit card clearing and settlement system as are cards authorised by signature in a shop. The same will apply to debit card transactions when Internet security is satisfactory" (p. 69).*

The Reserve Bank notes that banks fear they will lose their direct relationship with the customers if software and network suppliers become the gateways to banking and payments. But the Bank sees this as a commercial issue rather than a public policy matter. The issues for public policy are those about:

*consumer protection, prevention of money laundering, potential erosion of tax bases and privacy protection and so fall outside the RBA's main area of responsibility. Even the potential loss of seigniorage from SVCs is ultimately more a matter for the Government than for the RBA (p. 71).*

So at present its approach is to closely monitor international developments and local trials. If there is a risk that the failure of a "major broadly-based [SVC] scheme could have damaging effects on consumers and merchants and on general confidence in other similar products," then for the first time the RBA has proposed that:

*Given this risk, the RBA is inclined to the view that SVCs which are likely to be widely issued and accepted, and whose use generates significant liabilities which must be cleared and settled, should be issued only by supervised financial institutions (p. 72).*

The Australian Competition and Consumer Commission (ACCC) has a similar list of public policy issues, but by the nature of its brief concentrates on competition and consumer protection. Like the Reserve Bank, it trusts that it will be in the providers' and industry's interest to ensure that the new forms of payments are as secure and trustworthy as possible. It brings up more sharply the need to ensure that the frameworks of liability, privacy and consumer protection are coordinated internationally, given that the new forms of payments are not confined within national boundaries. However, the ACCC submission conveys a greater sense of urgency, as technology and globalisation are already demonstrating the limitations of access and the exclusion of new forms of money from existing frameworks dealing with liability and dispute resolution. It recommends that the Electronic Funds Transfer Code of Conduct be reviewed as a first step to include some of the newer forms of electronic money.

The law enforcement agencies are more vocal about the possible misuse of "cyberpayments". Glenn Wahlert of the Office of Strategic Crime Assessments (OSCA) drew a horror scenario in his presentation to the Australian Payments System Council in May 1996, painting a picture where electronic money was being widely used for criminal activities beyond the purview of banks or regulatory agencies. The need is to devise new tracking mechanisms in cyberspace while ensuring a modicum of privacy demanded by consumer and privacy groups. (Wahlert, 1996). He issued a warning to the Council that considering Australia's reputation for swift acceptance of new technologies, and the speed with which these technologies are advancing, "there is a danger that they will be introduced as part of Australian money culture in a regulatory vacuum and with little appreciation of their implications for law enforcement" (Wahlert, 1996, p. 6). He pointed to the fact that as yet there are no laws that would prevent any amount of currency being loaded on to smart cards and being sent out of the country undetected. He said:

*There are also a host of questions that the regulators are unable to answer: who should be allowed to issue e-cash, and who will regulate the issuers? How will taxes be applied in cyberspace...? How will regulators police money laundering and counterfeiting on private networks? While law enforcement agencies and the regulators wrestle with these questions, technology is remaking the monetary system (Wahlert, 1996, p. 6)*

These issues are now being addressed on a “whole of government” basis through the Electronic Commerce Task Force. It is chaired by the Australian Transaction Reports and Analysis Centre (AUSTRAC) and includes senior representatives from the Reserve Bank of Australia, the Australian Taxation Office, National Crime Authority, Australian Federal Police, the Department of the Public Prosecutor the Attorney General’s Department and the Office of Strategic Crime Assessments. However they too are adopting a “hands off - eyes open approach” and are not expected to recommend a legislative solution to pre-empt criminal developments.

The common thread is that none of these policy formulations are based on an understanding of how the residential consumer is at present using electronic money to pay for goods and services. There also appears to be little appreciation that policy needs to be embedded in such an understanding. I illustrate this by examining the record of the Australian Payments System Council’s monitoring of the payments system. The Australian Payments System Council was established in June 1984 to oversee the development of Australia’s payments system. Till 1993, it was mostly a providers’ forum headed by the Reserve Bank. In 1993 it was expanded to include three consumer representatives<sup>4</sup> and a representative of the Trade Practices Commission (now ACCC).

In this newly constituted Council, there was vigorous debate on what constituted a proper monitoring of the payments system. It led to the first ever acknowledgment by the Council in its Annual Report that its description of the Australian payments system was incomplete in that it “draws on available data, which are mainly confined to the *value* of payments. Only limited data are available on the *number* of payments, and none on the relative *usage* by consumers of different payment instruments” (Australian Payments System Council, 1994, p. 19). Ever since, it has made that admission in more muted form, but nothing has been done to ensure that the Council as a body gains an understanding of how consumers use the different payment instruments.

The Australian Payments Clearing Association that looks at the operational and technical aspects of the payments system, also does not collect consumer data. It was set up in 1992 and is owned by the major providers of payment services and chaired by the Reserve Bank. However it is data from APCA that formed the basis of the Council’s reporting on “Access to the Payments System”. in 1992-1993. “Access” for the Council in 1992/93 was access for the providers rather than the consumers (Australian Payments System Council, 1993).

The lack of consumer data makes it difficult for the Council to understand how consumer access to different parts of the payments system is limited for groups that lack literacy or the computer equipment and expertise that is needed for some of the newer forms of money. At present, this means that at least 70 per cent of the households that do not have a PC at home and 93 per cent that do not have a modem are virtually excluded from the forms of money that use computers or the Internet as the transaction medium. Its data, by exclusion, gives the impression that we are moving towards a cashless, branchless system.

This lack of understanding of the users’ perspective stands out because more effort is being made in the United States and in the United Kingdom to collect consumer payments usage data. In the United States the Board of Governors of the Federal Reserve System commissions surveys of Currency and Transaction Account Usage. These are reported upon in the Federal Reserve Bulletin. In the United Kingdom, since 1988, the Association for Payment Clearing Services has retained a major market research agency to survey consumer payment and financial behaviour.

---

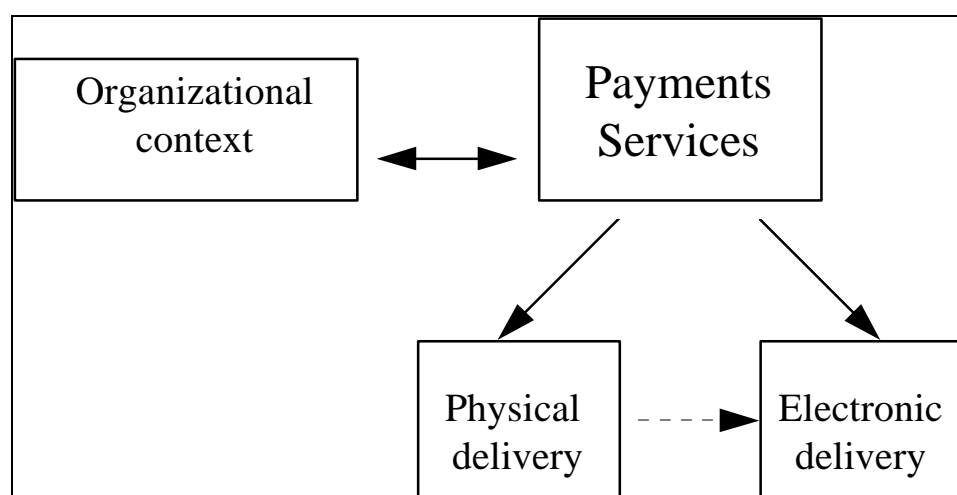
<sup>4</sup> The author has been one of the three consumer representatives on the Council since 1993.

## 6.2 Strategic Implications

An understanding of the way residential consumers use electronic money would also advantage providers of payments services. The absence of such an understanding has contributed to banks' difficulties with the pricing of payment services; a delay in transforming traditional payments instruments and transaction modes; and a potential loss of their central role in payments services. This is a particular important loss, for in the United States, the payments industry is estimated to generate \$US 84 billion a year. This is "equivalent to 40 percent of the total revenues earned by commercial banks, savings and loans, and credit unions in America today" (Bowers and Devine, 1995). It is not possible to give a corresponding figure for the Australian payments industry. Neither the Australian Payments System Council nor the Australian Payments Clearing Association was able to provide this figure.

When payment service providers place payment services at the centre of analysis, their questions are directed to how best they can use fees to move customers to the lower cost electronic system. At the organisational level, the focus has been on increasing the role of electronic delivery systems. This is represented in figure 7.

**Figure 7: The Providers' Perspective: The Policy Focus**



This is based on their view of an ever increasing proportion of electronic transactions compared to the physical. The National Australia Bank (NAB) in its submission to the Financial System Inquiry charted that by the year 2005, consumers will use EFTPOS, SVCs, ATMs and then the teller - in that order - to get cash into their wallet. This compares with the present scenario where it is ATM first, followed by the teller and then EFTPOS. It saw a similar migration from the teller to the bank mainframe to put funds into the account (National Australia Bank, 1996). Though NAB's account of the present and future acknowledges the continuity of physical payments and transaction systems, its presentation in terms of number of transactions gives the picture of an unquestionable dominance of the electronic within the next five to ten years.

The problem with this scenario is that it does not take into account that the new technologies diversify ways of payments rather than necessarily lead to substitution. Banks in the past have failed to predict patterns of usage and it has cost them heavily. In the United States, it has been estimated that the introduction of ATMs in the 1980s added \$US 5 billion in operating expenses, while saving

only \$US 200 million in savings from reduced teller positions (Mendonca & Nakache, 1996, p. 142). In Australia, the increasing fees on transactions cost banks customer good will. At the same time it failed to make the costs of payments services transparent, for as Mair (1996) of the Reserve Bank of Australia notes that "for the most part, banks and others have been reluctant, or unable, to pass the full cost of providing cheque payment facilities back to consumers" (p. 11).

Banks also delayed transforming their delivery networks to respond to customers' changing mix of physical and electronic forms of money. In Australia, branch remodelling for a long time was driven by banks' need to reduce operating costs. In the United States, in the first wave of technology, banks failed to grasp the value of the electronic credit card processing and payments network and thus lost control of a \$US 12 billion market (Bowers & Devine, 1995).

In the United States, non-bank players such as Intuit and Microsoft are poised to occupy the most powerful gateway positions in the second wave of technology with the growth of PC and on-line services. As Bowers and Singer (1996) point out, bankers should remember "that a widening gap between the information that financial institutions actually provide to their customers and the information that might be delivered was what created the market opportunity" (p. 82) for personal financial management software in the first place.

In this paper I have argued that providers of payment services need to address payments activities from the perspective of the users within their social and cultural context. This would mean concentrating on payments activities rather than their products; thinking in terms of forms of money rather than payments instruments and transaction modes. This is represented in Figure 8.

**Figure 8: Adopting the Users' Perspective: Policy Focus**

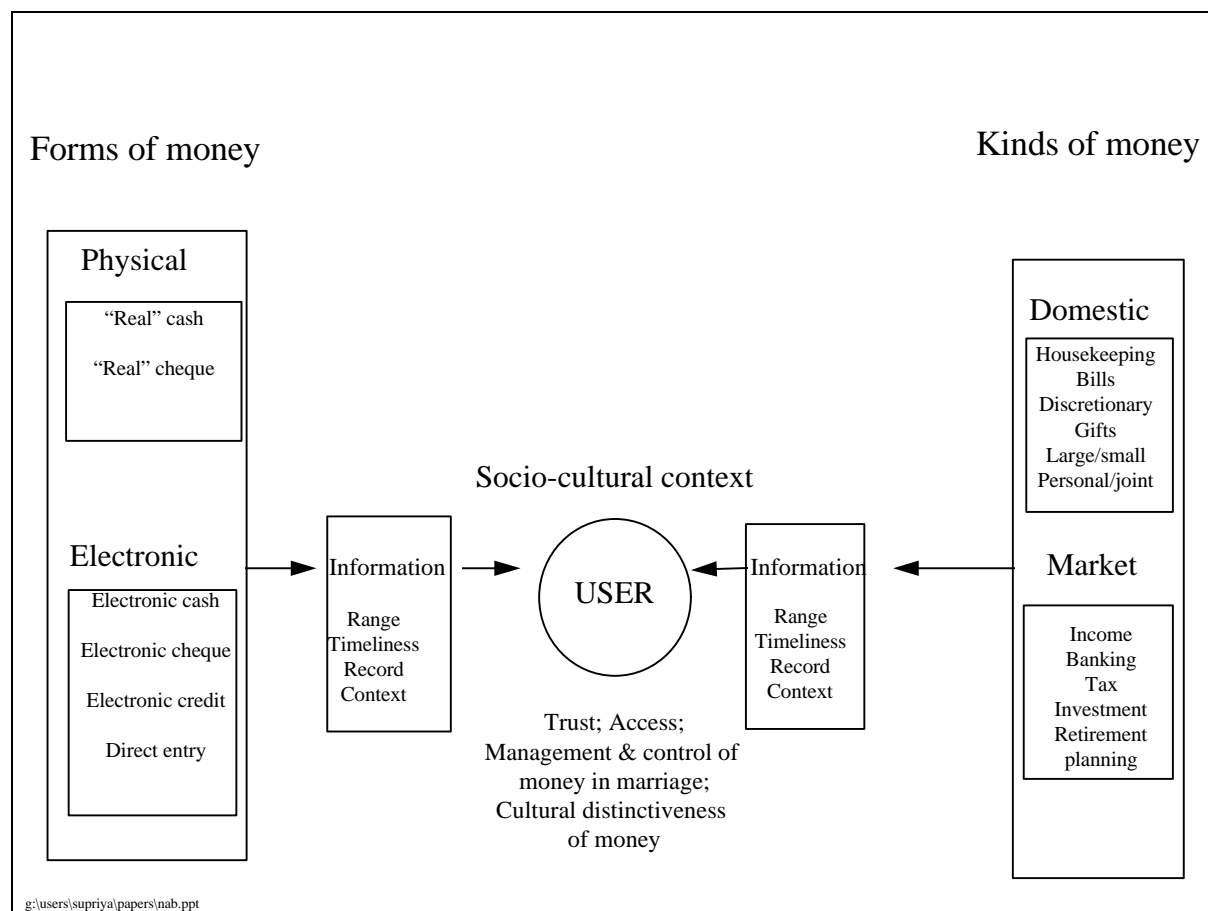


Figure 8 summarises the main issues that are important for providers and policy makers. By placing the user at the centre, they would connect up better to the way customers pay for goods and services.

This would allow providers to recognise that the focus needs to be on providing for the use of multiple forms of money. It will also direct attention to ensuring that forms of on-line money deliver information that makes it suitable for a large variety of payments, and include elements that engender trust in the on-line system. It also securely places the user within his or her social and cultural context, so that the social impact and shaping of electronic money is acknowledged as a starting point. Strategically these questions lead to questions of how the delivery systems need to be transformed so that payments providers can ensure a profitable role in a payments industry.

These questions are also important for regulators who seek to monitor and report developments in the payments system. At present in Australia, the advisory and industry bodies that look after the payments business themselves have no data on how customers use forms of money. Though there is an increase in the number of government and industry bodies focusing on electronic commerce, this is being done from the perspective of the providers of the regulators. Without an understanding of the cultural and social meanings of money from the users' perspective, they cannot adequately ensure that the payments system is stable, efficient and equitable.

---

## 7. Future Research

Researching the use of electronic money has identified three areas for future research. These are:

- Testing the users' perspective with policy makers and providers;
- Further exploring the relationship between information, trust and technology;
- Analysing the relationship between the forms of money and multiple kinds of money at home, in small business and in corporations.

In this paper, I have documented the way questions and frameworks of analysis change as the perspective moves from the provider to the user. It is a perspective that can be usefully applied across a number of activity areas such as education, paid work, shopping, seeking information, communicating, entertainment and gaming and gambling. It is also useful to see how it translates in the different domains of the home, small business and corporations. The next step would be to test the value of this framework by documenting case studies where the adoption of the users' perspective changed or did not change policy and strategic decisions and outcomes. It would also be important to analyse how the adoption of the users' perspective influenced the organisational structure and culture of the policy and market institutions.

The issue of trust is one that is so little spoken of in policy circles, that it emerged only late in the study and as such was not the focus of questioning in our interviews. As there is so little known about trust in a virtual and impersonal environment, it is particularly important to see how the factors that make for trust in a physical and personal environment would translate to the on-line world.

Previous research on forms of money has concentrated on the meanings behind the size, shape and colour of notes and coins. There has been little research on the relationship between forms of money and kinds of money. As seen in this study, electronic forms of money have the potential of changing the way we manage, control, and inform ourselves about money. They also possibly will change the gift relationships in personal and domestic life, as micro- transactions too small to be counted and calculated today, become possible because of the new technologies. This is important for the study of the nature of money, relationships at home and in the market place. Understanding the use of electronic money from the perspective of the user in his or her social and cultural context becomes even more important as electronic commerce extends its reach, for electronic transactions will be part of the ways we work, study, play, entertain or inform ourselves, pay for goods and services or be paid.

---

## References

- AGB McNair Pty. Ltd. (1995, January). *Community gambling patterns: Vol. II Qualitative Study*. Melbourne: Victorian Casino and Gaming Authority.
- Allard, Tom. (1996, 11 May). We're withdrawn on ATM deposits. *The Sydney Morning Herald*.
- Australia New Zealand Banking Group Ltd. (1996). *Submission to the Financial System Inquiry*. Melbourne: The Author.
- Australian Bureau of Statistics. (1996, September). *Household Use of Information Technology Australia, February 1996*. Catalogue No. 8128.0. Canberra: Australian Government Publishing Service.
- Australian Competition & Consumer Commission. (1996). *Second Submission to the Financial System Inquiry*. Volume 1. Canberra: The Author
- Australian Payments System Council. (1993). *Annual Report 1992/93*. Sydney: The Author.
- Australian Payments System Council. (1994). *Annual Report 1993/94*. Sydney: The Author
- Australian Payments System Council. (1995). *Annual Report 1994/95*. Sydney: The Author.
- Australian Payments System Council. (1996, 16 February). Giropost information paper. Paper tabled at the meeting of the Australian Payments System Council, Sydney.
- Bank for International Settlements. (1994). *Payment Systems in Australia*. Basle: The Author.
- Blumberg, R.L. (1991a). Income under female versus male control: Hypotheses from a theory of gender stratification and data from the third world. In R. L. Blumberg (Ed.), *Gender, Family, and Economy: The triple overlap* (pp. 97-127). Newbury Park, Calif.: Sage Publications.
- Bollier, D. (1996). *The Future of Electronic Commerce: A Report of the Fourth Annual Aspen Institute Roundtable on Information Technology*. Aspen, Colorado: The Aspen Institute.
- Bowers, T. & Devine, T. (1995). The next upheaval in the US payments system. *The McKinsey Quarterly* Number 4: 74-84.
- Bowers, T. & Singer, M. (1996). Who will capture value in on-line financial services? *The McKinsey Quarterly* Number 2: 78-83.
- Bureau of Transport and Communications Economics. (1995, March). *Communications Futures: Final Report*. Canberra: Australian Government Publishing Service.
- Cookes, T, & Robotham, J. (1995, 31 October). PC Survey explodes the myths, *Computer Age*.
- Consumer Credit Legal Centre (NSW) Inc. (1996). *Submission to the Financial System Inquiry, Smart cards: Consumer issues and regulatory options*. Sydney: The Author
- DBM Consultants. (1995). *Community gambling patterns: Third Survey* (3 vols). Melbourne: Victorian Casino and Gaming Authority.
- Dervin, B. (1992). From the mind's eye of the user: The sense-making qualitative-quantitative methodology. In J. D. Glazier & R. R. Powell (Eds.), *Qualitative Research in Information Management* (pp. 61-84). Englewood, Colorado: Libraries Unlimited.

- Edwards, M. (1984a). The distribution of income within households. In D. Broom (Ed.), *Unfinished Business: Social Justice for Women in Australia* (pp. 120-136). Sydney: Allen & Unwin.
- Edwards, M. (1984b). *The Income Unit in the Australian Tax and Social Security Systems*. Melbourne: Institute of Family Studies.
- Gillard, P, Bow, A., & Wale, K. (1995). *Positioning Telecommunications Consumers*. Melbourne: Telecommunications Needs Research Group. Royal Melbourne Institute of Technology.
- Gillis, J. R. (1985). *For Better, For Worse: British marriages, 1600 to the present*. Oxford: Oxford University Press.
- Glaser, B. G. (1978). *Theoretical Sensitivity: Advances in the methodology of grounded theory*. Mill Valley, CA: Sociology Press.
- Glaser, B. G., & Strauss, A. L. (1967). *The Discovery of Grounded Theory: Strategies for qualitative research*. Chicago: Aldine.
- Griff, C. (1994). Low income people. In Telecom Australia: *Population Group Discussion Papers & Policy Issue Discussion Papers* (pp.17-28). Melbourne: Telstra Corporation Ltd.
- Head, B. (1995a, 30 January). Australia: Banks encourage electronic users. *Australian Financial Review*.
- Head, B. (1995b, 5 June). Australia: Survey - Computer Age is already changing the face of banks - Personal computing. *Australian Financial Review*.
- Kaplan, M. A. (Ed.). (1985). *The Marriage Bargain: Women and dowries in European history*. New York: Harrington Park Press.
- Kavanagh, J. (1996, 3 March). Credit cards tossed away. *The Australian*.
- Komarovsky, M. (1962). *Blue-Collar Marriage*. New Haven: Yale University Press.
- Kyrish, S. (1996). *From Videotex to the Internet: Lessons from online services 1981-1996*. Melbourne: La Trobe University Online Media Program.
- Lamberton, D. (1994). Diffusion of new information technologies and products. In Bureau of Transport and Communications Economics, *Diffusion of Communications, entertainment and Information Services*, Communications Futures Work in Progress, Attachment 1 to paper 4, (pp. 5-35). Canberra: Australian Government Publishing Service.
- Livingstone, S. (1992). The meaning of domestic technologies: a personal construct analysis of familial gender relations. In R. Silverstone & E. Hirsch (Eds.), *Consuming Technologies*, (pp. 113-130). London: Routledge.
- Mackrell, N. (1996). *The Cheque's Role in Today's Payment System*. Unpublished transcript of talk by Neil Mackrell, head of Financial System Department, Reserve Bank of Australia to the AIC Conference on the future of cheques, Sydney, 16 May.
- Madden, G., & Simpson, M. (1995). *A Probit Model of Household Broadband Service Subscription Intentions: A Regional Analysis*. Paper presented at the CIRCIT Conference, "Shaping the Superhighway: Vision to Reality", Melbourne, September.

- Mair, P. (1996). *Consumer Payment Cards*. Paper presented at the First Australian Computer Money Day, The University of Newcastle, 28 March.
- Marx, K. [from 1927] (1971). Economic and philosophical manuscripts. In D. McLellan (Ed. & Trans.), *Karl Marx: Early texts* (pp. 130-183). Oxford: Basil Blackwell.
- Mendonca, L. & Nakache, P. (1996). Branch banking is not a dinosaur. *The McKinsey Quarterly*, Number 1: 136-147.
- Morris, L. (1990). *The Workings of the Household*. Cambridge: Polity Press.
- National Australia Bank. (1996). *Submission to Financial System Inquiry*. Melbourne: The Author.
- Pahl, J. (1989). *Money and marriage*. London: Macmillan.
- Papohunda, E. R. (1988). The nonpooling household: a challenge to theory. In D. Dwyer & J. Bruce (Eds.), *A Home Divided: Women and income in the Third World* (pp. 143-154). Stanford, California: Stanford University Press.
- Rayport, J. F., & Sviokla, J. J. (1994). Managing the marketspace. *Harvard Business Review*, November-December: 141-150.
- Richardson, E, Singh, S, & Burke, J (1996). *Issues Paper on Retail Financial Services*. CIRCIT Research Report 11. Melbourne: Centre for International Research on Communication and Information Technologies.
- Reserve Bank of Australia (1996, 6 September). *Submission to the Financial System Inquiry*. Sydney: The Author.
- Samarajiva, R (forthcoming). Interactivity as though privacy mattered. In *Technology and Privacy: The New Landscape* edited by Phil Agre and Marc Rotenberg. Cambridge MA: MIT Press. (Citing from manuscript revised June 1996).
- Shoebridge, N. (1995, November 6). The marketers' missing millions. *Business Review Weekly*, 50-54.
- Simmel, G. [1900] (1990). *The philosophy of money* (2nd ed. Trans. by T. Bottomore & D. Frisby). London: Routledge and Kegan Paul.
- Singh, S. (1984). *On the Sulu Sea*. Kuala Lumpur: Angsana Publications.
- Singh, S. (1992). *Banks and migrants: An untapped market*. Melbourne: Consumer Credit Legal Service.
- Singh, S. (1994). *Marriage, Money and Information: Australian consumers' use of banks*. Unpublished doctoral dissertation submitted to the Department of Sociology and Anthropology, La Trobe University, Bundoora, Australia.
- Singh, S. (1995a). *Money Online in Malaysia*. CIRCIT Working Paper 1995/3. Melbourne: CIRCIT.
- Singh, S. (1995b). *Understanding Demand for Interactive Multimedia Services: A methodological discussion*. Paper presented at the Communications Research Forum, Sydney, 19-20 October.
- Singh, S. (forthcoming a). The cultural distinctiveness of money. *Sociological Bulletin*.
- Singh, S. (forthcoming b). Money, marriage and the computer. *Marriage and Family Review*.

- Singh, S., Bow, A., & Wale, K. (1996). *The Use of Information and Communication Technologies in the home*. Policy Research Paper No. 40. Melbourne: Centre for International Research on Communication and Information Technologies.
- St. Clair, J. (1996). Becoming digital: Networked technologies in the home. Paper presented at the IAMCR Conference.
- Strauss, A., & Corbin, J. (1990). *Basics of Qualitative Research: Grounded theory procedures and techniques*. Newbury Park, Ca: Sage Publications.
- Tucker, G. (1995). *Security, Privacy and Intellectual Property Rights in the Information infrastructure*. Paper presented at the KISDI-OECD Joint conference on information Infrastructure: The Vision for the New World Order, Seoul, Korea, April 26-28.
- Vogler, C., & Pahl, J. (1993). Social and economic change and the organisation of money within marriage. *Work, Employment & Society*, 7(1), 71-95.
- Wahlert, G. (1996). *Electronic Money: A forecast of its impact on high technology crime*. Address to the Australian Payments System Council, 10 May.
- Weber, M. (1947). *The Theory of Social and Economic Organization* (Trans. by A. M. Henderson & T. Parsons, Ed. by T. Parsons). New York: The Free Press.
- Weber, M. (1978). *Economy and Society* vols. 1 and 2, edited by G. Roth & C. Wittich, Berkeley, Calif.: University of California Press.
- Wilson, G. (1987). *Money in the Family*. Brookfield, USA: Avebury.
- Zelizer, V. (1989). The social meaning of money: "Special monies". *American Journal of Sociology*, 95(2), 342-377.
- Zelizer, V. (1994). *The Social Meaning of Money*. New York: Basic Books.