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APPENDIX A

Excerpt from Research Feedback Report to eHIC Management

Table A1

Constraining influences in the implementation of the Internet-based self-service technology

Organisational environment	Broader context	Individual level
Alignment of priorities	Growing popularity of consumer centred healthcare	Perceived effort
Conflicting priorities	Poor bandwidth and connectivity	Habit
Database readiness	Exorbitant costs of access	Awareness
System integration readiness	First world management philosophy in a developing country context	Type of event
Business readiness	Institutionalised roles like call centres and telephones	The low need to interact
Innovation spiral (despite somewhat low competitiveness space)	Turbulent regulatory changes	Competing websites
Technical skills and process skills	Traditional roles like brokers	Span of attention
Legacy systems	Trust and security	The relative low involvement of the medical aid company in his/her life
Traditional channel emphasis	Grudge purchase product	Individual apathy towards adopting wellness programs
Lack of CRM and marketing skills or emphasis	dotcom bust	
Political issues over system territory	General social apathy towards health and thus the partial failure of wellness to enlist majority of customers towards active participation in health programs	
The current inscribed role of the channel and its perceived threat to paper-based initiatives and the call centre environment	Alignment of browser standards	
	Web server standards	
	Demand for technical skills	
Divided support at strategic level.	Rising costs of healthcare finance	
	Consumer centred healthcare under scrutiny	

Source: Feedback to Organisation (2005)

For simplicity and expediency, I listed a few categories or themes as feedback to eHIC's management – either historical or current – that appear to have acted as constraining forces in the implementation of the SST.

Excerpt from Feedback Presentation to eHIC Management

- Project centric Process centric
- Mechanistic Romantic
- Science Art
- Organisation User
- Efficiency Appropriateness
- Effectiveness Applicability
- Registration Adoption & use
- Registration Retention
- Usage Routines
- Reductionist (piecemeal) Holistic
- Gross Income Net income
- Cost per Call Cost per customer
- Gut feel Gut feel + info
- Internal focus External
- Generic services Tailored services
- Incremental improvement Breakthru'

Note: A presentation to the H-World department where I discussed various dichotomies and recommended a balanced approach towards implementation.

APPENDIX B

Interview Letter

Dear <Interviewee Name>

My name is Rennie Naidoo. I am a PhD (Information Technology) student at the University of Pretoria.

Information Technology students are often unable to research sticky, practice-based initiatives such as the implementation of self-service technologies, specifically where the experiences of the systems staff, business staff and users are critical and the business context important. In fact, instead of providing the initial wisdom for novel ideas such as self-service channel implementation, we often have to learn by studying the innovations put in place by organisations such as UAG.

My research thesis is on 'the implementation, adoption and use of self-service technologies (SSTs)'. In this regard, UAG's online self-service channel www.H-World.co.za makes for an extremely interesting case study and <Name of Department Head> has kindly endorsed for such a project to be undertaken.

Your participation and perspectives are extremely important to the success of this project. Please make yourself available for a round of semi-structured interviews. If possible, can you make the above date and time?

I estimate that the interview process will consume less than an hour of your time. For the interviews, I will be using open-ended questions that focus on your everyday work experiences, and how these experiences inform your understanding of self-service technology in the UAG Health context.

All interview sessions will be audio recorded – these recordings and their transcripts will be treated with the strictest of confidence.

I am optimistic that your participation will provide useful insights so that we can increase our understanding of self-service technology implementations.

Regards,

Rennie

Interview guide

An Internal view on the implementation, adoption and use of online services		
Semi Structured Interview With	Names(s)	Titles(s)
Phone number	Address	Date Time
Interviewer		File PhD/interview guide
1. Basic Questions		
Who is the interviewee?	<ul style="list-style-type: none"> • What department/section are they in? • What do they do there? • What is their relationship with the rest of the department and organisation? • What is the person's educational/experiential background? • How long have they been working here? • What are their roles and responsibilities? • What have been the most significant changes in their roles and responsibilities over the years? • How do they feel about these changes? • What type of skills are essential in your role? • Describe the development process and relationship with the team? 	
What is the major focus/service of their area?	<ul style="list-style-type: none"> • To their department? • To their organization? • To the industry? 	
What is the general technological orientation of this firm?	<ul style="list-style-type: none"> • Technophobic/technophilic? 	
What is the role of the online channel?	<ul style="list-style-type: none"> • Compare with other channels, other online services? 	
2. Types of Online Services/Functionality		
What types of services do you offer your online customers?	<ul style="list-style-type: none"> • Name some of them? • To what extent are they informational and transactional? • Which of your services do users use the most? 	
Which of these services are most important to them?	<ul style="list-style-type: none"> • Why? • Is there a shift towards transactional type services? 	
3. Perspectives on Users and Usage?		
Who are the different types of users of your system?	<ul style="list-style-type: none"> • Name them? 	
Which of these users use the system regularly and why?	<ul style="list-style-type: none"> • Generally describe users and their usage behaviour? • Why do other types of users use the online services less frequently? 	

APPENDIX

	<ul style="list-style-type: none"> • Does usage change over time? If so, in what way? And why do you think this is? • When are your online services used the most? • What events appear to trigger more use? Describe the patterns of these events?
What type of users should you target to create the critical mass and appropriate levels of usage?	
To what extent are your end users involved in the development process?	<ul style="list-style-type: none"> • Directly/indirectly?
Aside from the end users, who are the other stakeholders, both internal and external, to your online service offerings?	<ul style="list-style-type: none"> • What interest do they have in what you do? • How do they influence what you do?
How do users use your online services? For what purposes?	<ul style="list-style-type: none"> • Have there been any surprises in terms of how they use the system compared with its intended purpose? Clarify by means of an example?
What are the biggest benefits for your users to use your online services?	
What are the biggest benefits for the firm for users to use your online services?	
4. Alternative and Competing Channels?	
What are the biggest obstacles to increasing use?	
Prior to online services, what did users do?	
How do these other relationships influence the use of these online services?	<ul style="list-style-type: none"> • Call-centre consultants, scheme administrators, intermediaries such as brokers, what about employees?
Who are the channels competitors	<ul style="list-style-type: none"> • Other people, channels, other online services?
What types of services are appropriate for online use?	<ul style="list-style-type: none"> • Why do other types of users use the online services less frequently? • When do you think is the online service channel use most appropriate? • What are the advantages of the online services
What types of services are inappropriate for online use?	<ul style="list-style-type: none"> • Context? • Give examples? • Why?
What types of services are best left for traditional channels?	<ul style="list-style-type: none"> • Do you think that this trend will change over time? • What needs to happen for this shift to take place?
What types of actions have been put in place to stimulate and maintain use?	<ul style="list-style-type: none"> • What types of tactics will be

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	effective?
What needs to be done or changed to make DW just as effective as traditional channels?	<ul style="list-style-type: none"> • Is it possible in this context? • Internally • Externally
What do you think the ideal online service will provide or look like?	
Do you use banking services? What are the major differences between online health services and banking services?	<ul style="list-style-type: none"> • Why do you think this is so?
5. External & Internal Environment?	
Describe the external factors that influence the use of DW	<ul style="list-style-type: none"> • What are the constraining as well as enabling factors? • What needs to change? • Who needs to change these?
Which areas in your development team can/do contribute the most to increasing use?	<ul style="list-style-type: none"> • Why? • Where is the most room for improvement? • What impact can initiatives like usability have on the usage problem?
What is the role of the management of the online service?	<ul style="list-style-type: none"> • Does this differ from your expectations?
Which areas in your organisation can/do contribute the most to increasing use?	<ul style="list-style-type: none"> • IT, marketing, messaging? • Why? • Where is the most room for improvement?
Which areas external to the organisation can/do contribute the most to increasing use?	<ul style="list-style-type: none"> • Why? • Where is the most room for improvement?
6. Intended/Unintended Consequences?	
Can you think of some of the key things that the online services organisation set out to achieve and have achieved wrt to online services?	<ul style="list-style-type: none"> • By way of example?
What are some of the unintended consequences of introducing these online services?	<ul style="list-style-type: none"> • By way of example? • What has the impact been?
7. Strategy?	
What were the major drivers for the implementation of the online services?	<ul style="list-style-type: none"> • Goals, objectives
Have these changed or been altered over time? Why?	<ul style="list-style-type: none"> • What factors contributed to changes to strategy?
What are the critical success factors for these online services?	<ul style="list-style-type: none"> • From a project perspective? • From a business perspective? • What measures are in place to review this? • Have these measures changed over time? Are there new measures or change in emphasis?
What will make this channel for self-	



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servicing more successful?	
What are the future challenges for DW?	<ul style="list-style-type: none">• With respect to staff, end users & organisation?

APPENDIX C

Inventory of Interviews

Table C1

Detail record of interviews conducted

Nature of Group	Number of Interviews				Audio Transcript Code	
	Field trip 1	Field trip 2	Field trip 3	Other*	Code set 1	Code set 2
Business Analyst	1		1		01	55
Business Analyst	1				02	
Business Analyst	1		1		03	41
Systems Analyst	1				04	
Usability Analyst	1			2	05	
Architect	1				06	
Business Analyst	1				07	
Business Analyst	1				08	
Business Analyst	1				09	
Developer	1				010	
Business Analyst	1				011	
Business Analyst	1				012	
Business Analyst	1				013	
Business Analyst	1				014	
Marketing	1				015	
Developer	1				016	
Architect	1				017	
Developer	1				018	
Developer		1			018	
Architect	1				019	
Developer	1				020	
Architect	1				021	
Operations	1				022	
Architect	1				023	
Graphics		1			024	
Graphics		1			025	
Graphics		1			026	
Web designer		1			027	
Graphics		1			028	
Developer		1	1		029	053
Graphics		1			030	
Developer		1			031	
Marketing		1			032	
Project Manager		1	1		033	
Head – H-World		1		2	034	
GP – Stress		1			035	

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CIO – Health Systems	1				036	
Program Manager	1	1			037	042
PA	1		3		038	
Community Head	1	1			039	053
Community Head	1	1			040	054
Architect		1			043	
Community Head		1			044	
Community Head		1			045	
Nutrition Expert		1	1		046	
Business Analyst		1			047	
Architect		1	1		048	
Community Head		1			049	
Community Head		1			050	
Senior Business Analyst		1			051	
TOTAL	23	17	15	9		

Note: The category ‘other’ refers to progress and clarification meetings and email correspondence. The team responsible for ‘Customer intelligence’ assisted in the coordination of the interview process. A total of 55 interviews were conducted over three field trips spanning from February 2004 and ending in November 2006. Notes were made by me during the interviews and many transcripts were made of the audio-recorded interviews.

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Sample Interview Transcript

Interview #: 047
Interview Date: 1 December 2006
Tape ID: 047-A1
Respondent Name: Kathy Murray
Respondent Role: Business Analyst
Interviewer Name: Rennie Naidoo

<i>Tape Position</i>	<i>Interviewer/ Respondent</i>	<i>Comments</i>	<i>Researcher's Notes</i>
000	I	Your name is	
	R	Kathy, Kathy Murray	
	I	Okay at UAG. What did you do?	
	R	I was a Business Analyst for the UK Health I was responsible for the employer zone, the registration process and the company administration. I was involved in the Nutrition centre, the stress centre, pretty much everything on the Wellness side of the members' pages	
016	I	Okay talk about your day-to-day experience. How did a typical day start?	
	R	A lot of the time I was receiving queries from the call centre because the users did not understand the concept of the site. So, yes, we had a continual cycle of fix, redesign, develop, fix, redesign, develop, fix. And, yes, we had a lot of that going on.	
	I	It sounds like there was a lot of maintenance to be done. Why was that?	
	R	First of all, you can't just plug and play it from one country to the next. Because what they, what one marketing team wanted, this or another. So, it started of saying, oh, yes, we are going to use this concept, and the more and more you delve into it, the more and more it moved away. So, a specific, a specific example was the, the Wellness Risk Assessment. We were going to now do this for both. And they just, we started off together and ended up, as I can see, very far apart.	Review globalisation concepts. Local-global dialectic
023	I	What were the main differences of that particular application?	
	R	Obviously, the requirements. How it was going to, linking into the system and what it was going to achieve at the end of the day. Different approaches.	

Inventory of Documentation for Analysis

Table C2

Detail inventory of documentation

Document Number	Description
DN01	July 1998; Publication: InformationWeek, Southern Africa; Title: Intranets, extranets
DN02	February 1999; Publication: The Cover; Title: Medical rate increases for '99
DN03	February 1999; Publication: Business Day; Title: Hi-tech centre handles medical aid queries
DN04	HIC's Health Plans brochure, 1999
DN05	June 1999; Publication: The Cover; Title: Leadership through innovation
DN06	August 1999; Publication: Business Day; Title: Health care gets an injection of e-commerce
DN07	September 1999; Publication: Sunday Times, Business Times; Title: HIC finds its destiny in US
DN08	October, 1999; Publication: Business Day; Title: Govt warns HIC
DN09	October 1999; Publication: Sunday Times, Business Times; Title: HIC's plan gets health warning
DN10	October 1999; Publication: Sunday Times, Business Times; Title: Inventor of the impossible medical aid dream
DN11	October, 1999; Publication: Business Day; Title: Health-care schemes enlist internet help
DN12	November, 1999; Publication: Business Report; Title: New ideas in financing health
DN13	May, 2000; Publication: Press Release; Title: UAG embraces e-commerce
DN14	UAG's Audited Interim Results for the six months ended 30 June 2000
DN15	ATG Dynamo Suite brochure-ware, 2000
DN16	January, 2001; Publication: Sowetan; Title: New set of codes for medical aids
DN17	January, 2001; Publication: Financial Mail; Title: UAG Holdings in a complex and risky industry
DN18	October, 2001; Publication: Moneyweb's Boardroom Talk; Title: UAG - Innovator or lawbreaker?
DN19	October, 2001; Publication: Business Day; Title: KPMG report slams UAG
DN20	November, 2001; Publication: Business Report; Title: There may be more than two sides to the story of UAG
DN21	November, 2001; Publication: Business Day; Title: How UAG broke its own rules

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DN22	November, 2001; Publication: Business Day; Title: Tricky sector, health
DN23	December, 2001; Publication: Business Day; Title: Survey finds medical schemes battling to stay solvent
DN24	December, 2001; Publication: Personal Finance; Title: Open medical schemes on the losing end
DN25	UAG's Unaudited Interim Results for the six months ended 31 December 2001
DN26	HIC's Health Plan Guide, 2002
DN27	January, 2002; Publication: Inform Magazine; Title: Quizzing the registrar
DN28	February, 2002; Publication: Moneyweb; Title: Debunking HIC horror stories
DN29	UAG Magazine, Autumn 2002
DN30	April, 2002; Publication: Business Day; Title: Social health insurance could ease load on state
DN31	September, 2002; Publication: Personal Finance; Title: Can the private healthcare sector cut it?
DN32	H-World/HIC Data Analysis, October 2002
DN33	October, 2002; Publication: Iafrika.com; Title: HIC increases rates, targets poor
DN34	December, 2002; Publication: The Sunday Times; Title: State healthcare plan shakes up industry
DN35	H-World brochure-ware
DN36	UAG's Annual Report 2002
DN37	January, 2003; Publication: INET; Title: Hefty private healthcare costs in 2003
DN38	January, 2003; Publication: Business Day; Title: Staying alive in SA is a costly business
DN39	Call Centre Focus Group Session I, Fact File and Online Claim Services, April 2003
DN40	July, 2003; Publication: Personal Finance; Title: The wellness plan philosophy
DN41	July, 2003; Publication: Business Day; Title: Reforms could dramatically boost private health care
DN42	UAG's Intermediary Publication, July 2003
DN43	User Validation Workshop Findings for H-World, July/August 2003
DN44	Markinor Customer Relationship Assessment, September 2003
	UAG Magazine, Summer 2003
DN45	UAG's Annual Report 2003
DN46	H-World Strategy Presentation 2003

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DN47	H-World: Web Strategy Reality Check, 2003, Wits Business School, WBS-2003-13
DN48	Unpublished master's dissertation based on H-World users entitled: Extending the technology acceptance model for electronic commerce service continuance: Effects of perceived usefulness, service quality and loyalty incentives. Submitted to the University of Witwatersrand, December 2003
DN49	January, 2004; Publication: Femina; Title: How to get the most out of your medical aid
DN50	January, 2004; Publication: Cape Times; Title: Medicine costs to be slashed
DN51	March, 2004; Publication: Business Day; Title: State prescription for chaos?
DN52	Presentation: Analysis of components of buzz in UAG's health membership base, April 2004
DN53	Report: Analysis of components of buzz in UAG Health membership base
DN54	May, 2004; Publication: Citizen; Title: UAG makes it into the Als 40
DN55	Customer Intelligence Strategy, June 2004
DN56	Initial approval to conduct study granted verbally by the head of customer intelligence, June 2004
DN57	Submitted research proposal for research methodology course, June 2004
DN58	H-World Customer Retention Analysis, July 2004
DN59	August, 2004; Publication: Business Day; Title: Members gain as HIC rides a wave of fortune
DN60	Analysis of H-World Customer Profile, August 2004
DN61	UAG Magazine, Spring 2002
DN62	PhD research proposal approval presentation to University of Pretoria, Informatics Department, 15 September 2004
DN63	September, 2004; Publication: Business Times; Title: Health giant joins long line of loyalty clubs – but who pays?
DN64	Bataleur, H-World Customer Satisfaction Survey, September 2004
DN65	October, 2004; Publication: Business Day; Title: HIC takes first step into UK market
DN66	October, 2004; Publication: Business Report; Title: Hospital association leaps to the defence of private hospitals in 'super-profit' debate
DN67	November, 2004; Publication: Business Day; Title: Explorer fails to halt HIC credit card
DN68	November, 2004; Publication: The Financial Mail; Title: Critics keep an eye on savings
DN69	H-World Income Statement 2001 – 2004
DN70	UAG's Annual Report 2004

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DN71	January, 2005; Publication: City Press; Title: Putting employees in charge of their own healthcare costs
DN72	February, 2005; Publication: Business Day; Title: Cheaper medical schemes to cover more members
DN73	March, 2005; Publication: Business Day; Title: UAG considers investment products
DN74	June, 2005; Publication: Business Day; Title: Global credit ratings upgrade UAG's health medical scheme
DN75	June, 2005; Publication: The Financial Mail; Title: State's plan for poorer patients gets thumbs-down
DN76	Re-negotiate approval to pursue study with new head of H-World. Received principal approval via email confirmation, June 2005
DN77	Send introductory email to begin field trip 1 interviews, mainly with business analysts, July 2005
DN78	Site feedback, 360 storyboard, July – August 2005
DN79	Email received by business analyst for intermediary zone, providing a graphic description of broker environment, August, 2005
DN80	Submitted Research Feedback Report for head of H-World and Usability team – August 2005
DN81	Send introductory email to begin field trip 2 interviews, mainly with Java developers and architects, August 2005
DN82	September, 2005; Publication: Internal Press Release; Title: UAG brings in strategic empowerment partners
DN83	September, 2005; Publication: Press Release; Title: HIC delivers single digit increase to its 1.8-m members
DN84	November, 2005; Publication: Press Release; Title: Management re-organisation at UAG Holdings
DN85	UAG's Annual Report 2005
DN86	H-World Management Report 2001 – 2005
DN87	Send introductory email to begin field trip 3 interviews, November 2005
DN88	Email received by developer outlining frustration over department structural changes, November, 2005
DN89	UAG Magazine, Summer 2005
DN90	Email report submitted by business analyst on webtrends, 01 December, 2006
DN91	Health Plan Guide, 2006
DN92	Email report submitted by nutrition expert addressing the challenges with UK application, 18 January 2007 in response to my follow-up questions



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DN93 Met with three members of H-World management to present chapter 6 and minuted a discussion on my interpretation of events in chapter 6, 30 September 2007

Exploring Conceptual Structures using Network Representations

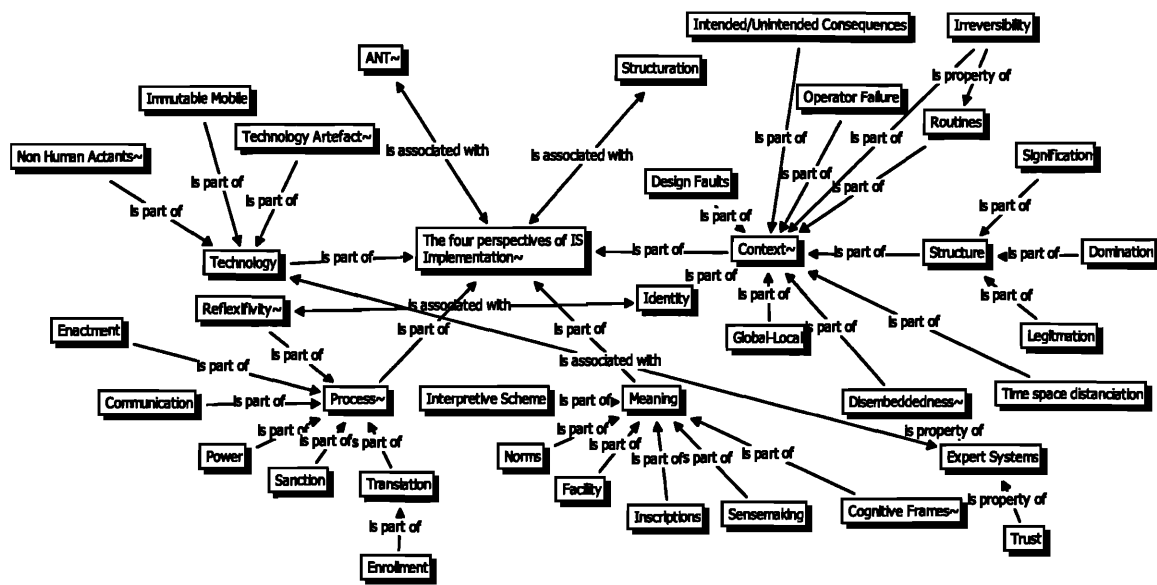


Figure C1 Exploring conceptual level structures using network representations

Note: The network representation in ATLAS.ti was used to handle the complex relationships between concepts. By using codes this also facilitated the retrieval of quotations and other information related to the key concepts.

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Sample View of Key Reports

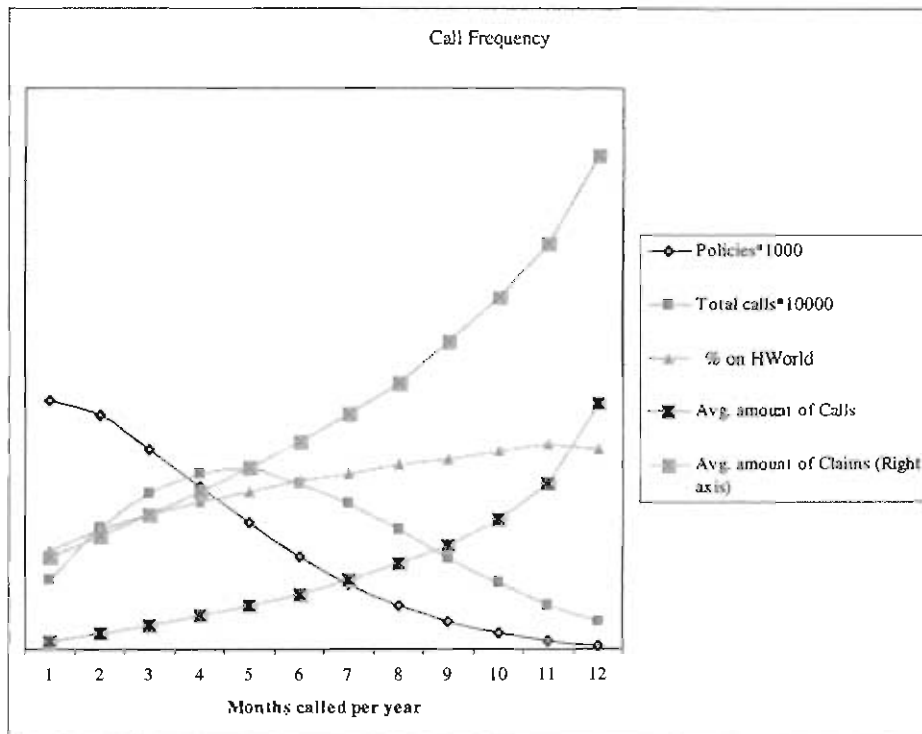


Figure D1 User profiling using calls and claims frequency

Source: Customer Intelligence Report, July 2004

Note: The x and y axis information have been removed to respect the confidentiality of the organisation's information. The graph illustrates that the critical mass of calls are made by those who use the SST less frequently than the 'loyal' users of the SST. Higher claims are associated with higher servicing need via multiple channels.

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<i>Source: Client Services Nov 01 data</i>	Reasons	% of Total
Claims	10	20%
Product information	11	20%
Communication issues	9	11%
Member Administration	4	8%
Chronics	3	6%
Transfer (MMD, Wellness, Debit)	3	3%
Provider Services	2	1%
Medical Management Division (MMD)	1	1%
Broker Commissions	1	1%
Money Market withdrawal	1	1%
CRM campaign	1	1%
Total - Top 46	46	71%
Total - 687 Reasons		

Figure D2 Major call reason categories

Source: Online claim services presentation, May 2002

Note: The statistic depends on the input of the call-centre consultant. Calls may have been related to one or more reason codes.

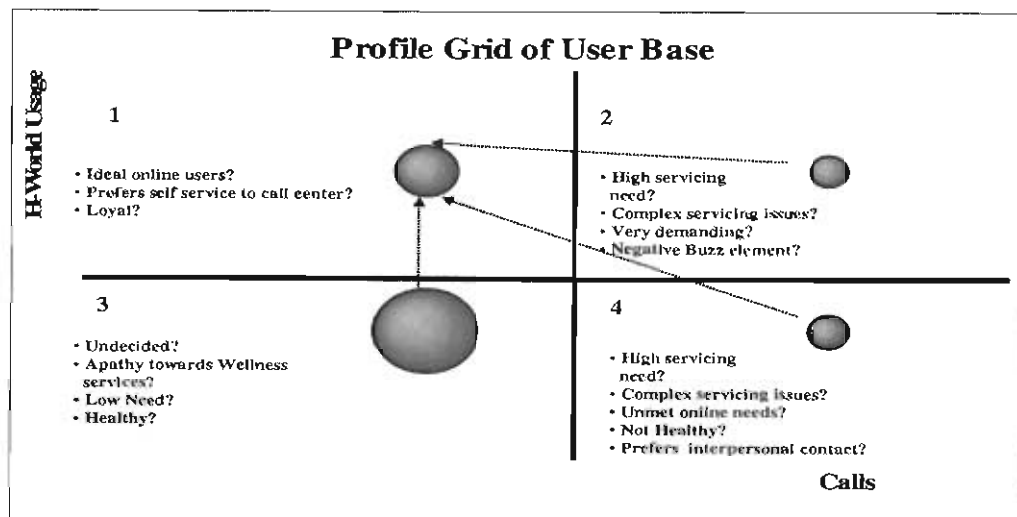


Figure D3 Profile grid of user base by call and login patterns

Source: H-World User Profile Report, 31 August 2004

Note: This analysis was based on the call and online usage behaviour of over 70 000 users assessed over a similar period, using recency and frequency of channel interaction as the key measures.

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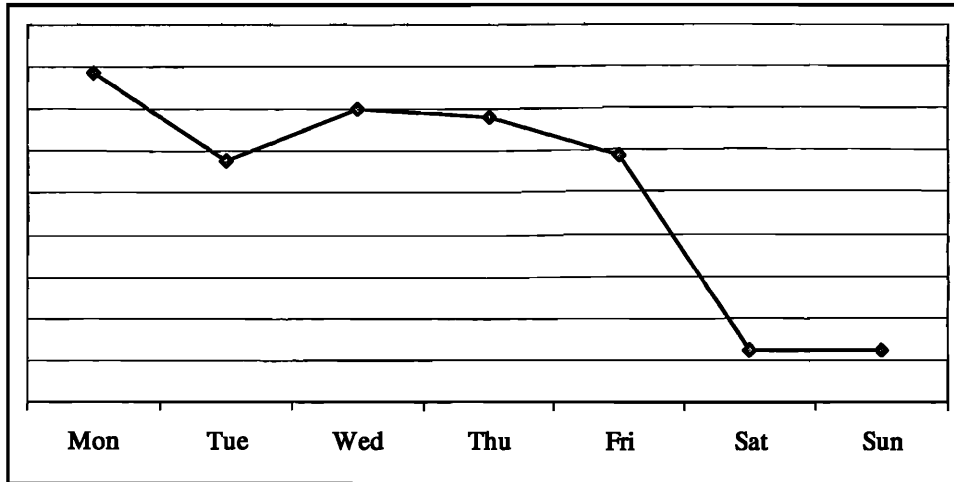


Figure D4 Login trend by day of the week

Source: H-World Ops Management Report, July 2003

Note: This analysis points out the pattern of use for the SST. The SST was used more often during the work week, despite the convenience aspect. This trend also confirms that most users were accessing the SST from work.