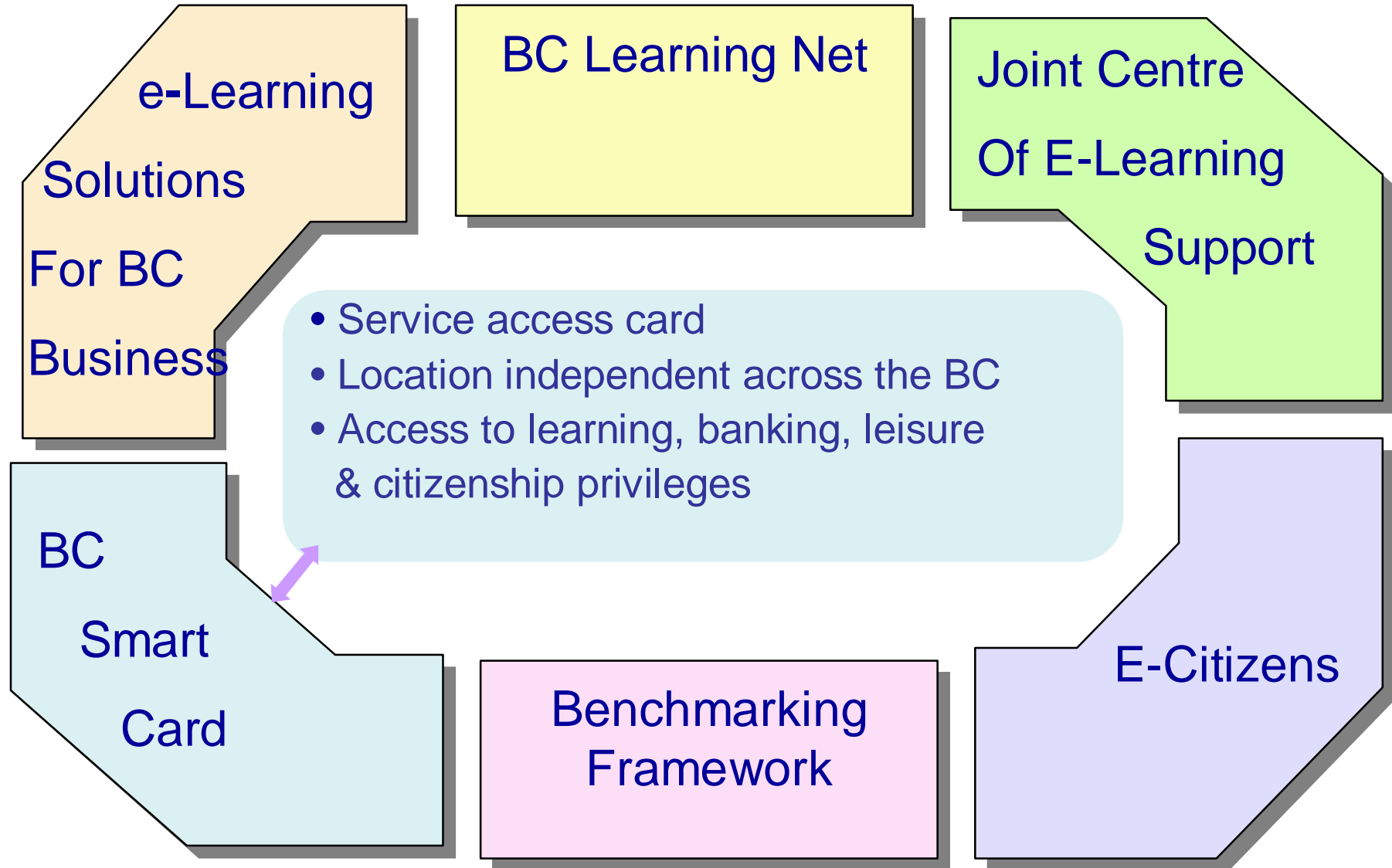


Accessibility and Social Inclusion Black Country and DATES

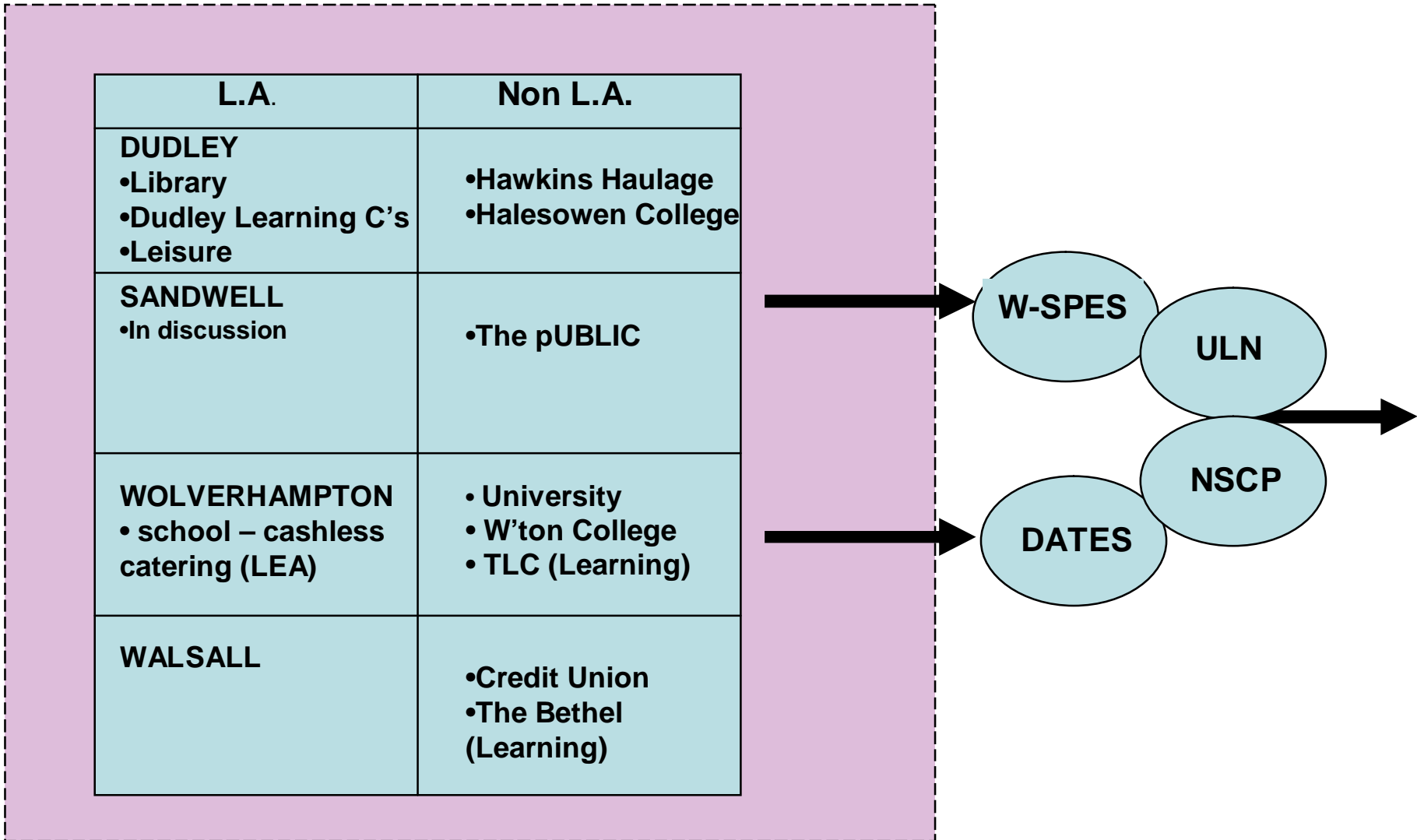
- Dr Steve Cassidy
Consultant to BCKS/Sheffield

- Dr Andy Dearden
Sheffield Hallam University / British HCI Group





Black Country Scheme and Activities



Developing Authentication Tokens for E-Services (DATES)

Initial authentication and use of e- services often problem for certain disadvantaged groups

		Potential Users						
		Low income	Elderly	Disabled	NEFL	Disad learners		
Applications	Learning	<i>Reduce the digital divide</i> <i>Evaluation of technologies</i> <i>User-led design</i> <i>Learning Report</i> <i>Guidance Pack</i>					Smart cards	Technologies
	Personal Finance						Memory sticks	
	Democracy						Biometrics	
	????						????	

Partners

- **Black Country Knowledge Society**
- **Sheffield City Council**
- Unicard – CMS services/web
- Sharp – smart cards and related tech
- Routeco – learning packages
- Sparta – Secure web transaction service
- Sheffield Hallam University – usability
- Newcastle University - biometrics
- Wallsave Credit Union/Sheffield Credit Union
- TLC College Wolverhampton



Partners

Black Country Knowledge Society



Routeco



UNIVERSITY OF
NEWCASTLE UPON TYNE



Black Country Knowledge Society

Users driving design

Andy Dearden

Sheffield Hallam University /
British HCI Group



Black Country Knowledge Society

Communication & Computing Research at Sheffield Hallam

- Technical communication
- Communication in society
- Large scale information systems
 - E-commerce, database systems
 - Analysis methods, impact studies
- Interaction design and usability
 - Mobile devices, decision aids, accessible design
 - Design methods, design tools
 - Engaging users in designing
- Software Engineering
- Agents and web technologies



What do we do?

- Help people explore
 - Current needs
 - Future technologies
- Engage people in designing
 - Hands on
 - Directing the technology & the technologists
 - Mutual learning
- Evaluating usability & user experience
 - At the design stage
 - At the prototype stage
 - At the final roll out

Smartcards in the public sector – a challenge

- Very diverse user groups
 - Elderly
 - Disaffected young people
 - Ethnic minorities
 - People with disabilities
- Cinderella technology
 - Limited attention from the research community
- Highly accountable
 - Mistakes will be punished!!



DATES project - Methods

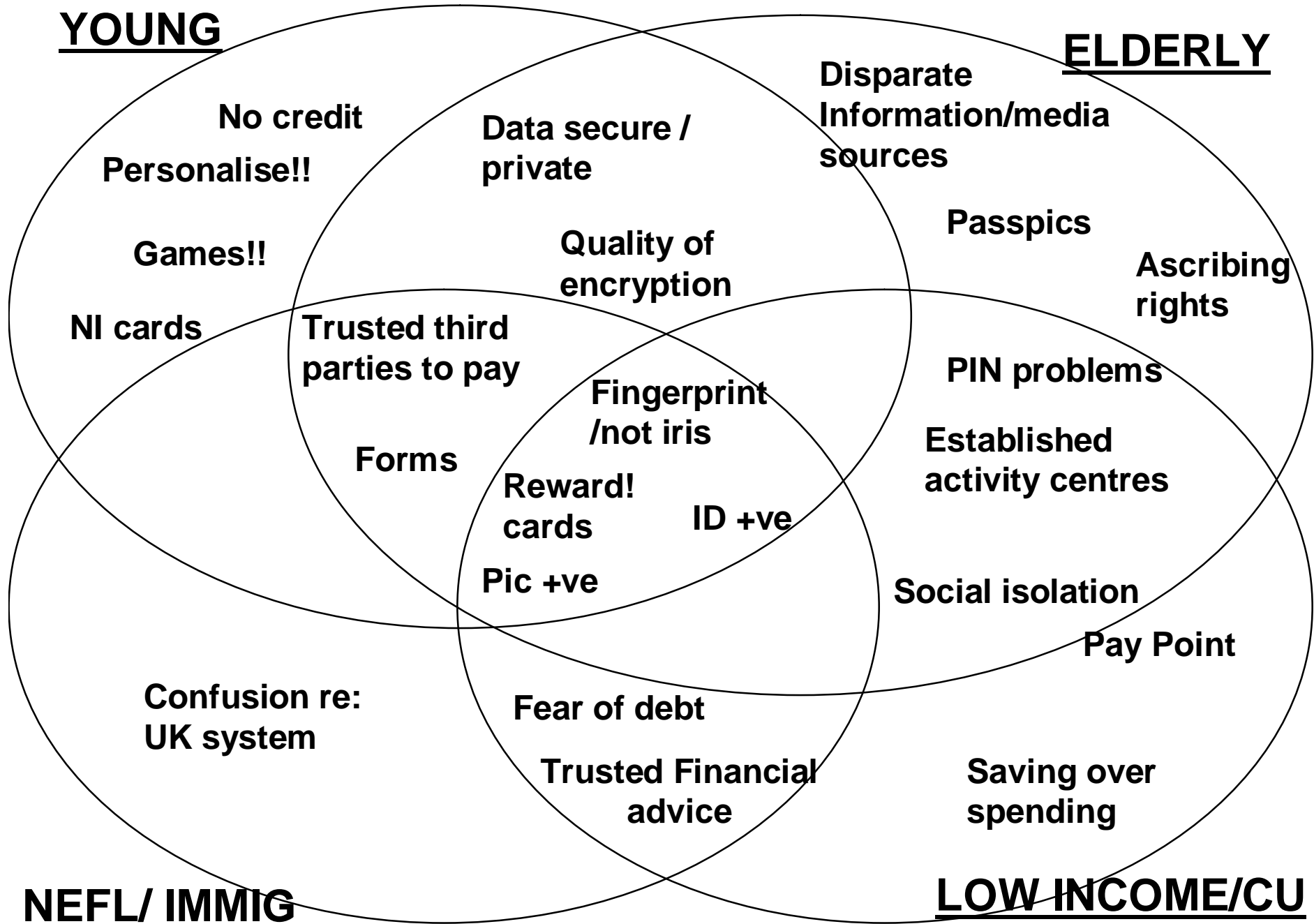
- Focus group interviews
 - Talking about lives
 - What they do and what they use
 - Initial responses to smartcard concepts
- Design workshop
 - Scenarios and story telling
 - A resource allocation game
- Collaborative workshop
 - Personas
 - Conceptual designs

The focus groups

- Elderly
 - Agewell lunch club network, Sheffield
- Ethnic minority members
 - Bangladeshi women's group (mixed ages)
- Disadvantaged learners
 - New Deal participants
- People with disabilities
 - OneVoice Action on Disability

YOUNG

ELDERLY



The design workshops

- 2 hour session
- Pastiche Scenarios
 - Exploring possibilities through stories
 - Based on future concepts
- Examination of prototypes
 - Picture PINs
- Resource allocation game
 - How would our users like to spend their money

Pastiche Scenarios

- Present the technique
 - Believable stories of ‘real people’ doing real things
 - Blanche Hunt visits Deirdre Rashid in hospital and arranges to pick up her pension for her
- Users develop their own scenarios
 - Decks of cards for
 - Possible characters (Scrooge, Victor Meldrew, Bart Simpson)
 - Activities (applying for housing benefit, renewing a bus pass, visiting the doctor, starting a course)
 - Googlies – (lost card, new baby, job interview later today)
- Discussions tape-recorded



What happens?

- Users add their ideas to the scenario
 - Scrooge limits the amount of cash on his card
 - Storing lottery numbers on the card
 - Providing the holder with an audit trail
- Discussion raises potential issues
 - Parking meters may need to change
 - Nick Cotton would quickly figure out Dot's Picture PIN
 - Who updates personal details?
 - Mixing different types of private data
 - Financial
 - Medical
 - Different levels of security for different applications

Resource Allocation Game

- A range of services
 - Represented on cards
 - Small payments, buses, car parking, credit union deposits, library, leisure centre, course attendance, store loyalty ...
- Users given £100
 - Monopoly money
 - Spend it on the services you value



Findings

- Many groups want choice
 - Select the services we need
 - Select the authentication methods
 - Different combinations on different cards
- Associations between cards
 - Lending the bus fare to get a child home
- Home readers
 - Card in combination with the kitchen calendar

Why the methods matter

- Play sparks imagination
 - Prototyping picture PINs
 - Brought out richer discussions
 - Scenario writing
 - Brings up issues & problems that were not apparent in focus group discussions
 - Handling example cards
 - Enabled the young people to tell us our example cards were boring – they want to customise and design their own cards!

SOME APPLICATIONS

- *Credit Union Workshop*
Paying in and saving important
Some small payment shopping
- *Elderly Workshop*
Council form filling
Transport
- *Young Workshop*
Games (memory, rewards, access)
- *Disabled Workshop*
Emergency information
Identify concession

SOME GUIDANCE

Back-up system

Thumbprint as
access tool

Provide a range of
procedures

Next Phases

- Collaborative Design Workshop
- User panel – *Pop Idol*
- *Learning Access/Personal Account Control/Biometrics*
 - *Demonstrators*
 - *Prototype*
 - *Wish List*
- On-Going Panel



Further Information

Stuart Hill

Black Country Smart Card Manager/DATES

hillstuart@walsall.gov.uk

Tel: 01922 748361

Mobile: 07834 121115

BCKS Conference

1 & 2 March 2005

Walsall Football Club

Workshops and demonstrations

www.bcks.org.uk



Black Country Knowledge Society