Transforming Human Services for the Digital Era
Introduction

Innovation is critical in providing better public services to all Australians. As governments the world over commit to digital services agendas, the Australian Government Department of Human Services has taken a leading position in digitally transforming its services. However, the health and welfare payments system is extremely complex and critical. With more than a third of Federal expenditure under its management, the challenge for the department is to improve the customer experience and at the same time improve efficiency and service levels.

In 2009, the department and CSIRO formed the Human Services Delivery Research Alliance (the Alliance) to inform digital transformation with hard evidence and multidisciplinary research. Service efficiencies and improvements can’t be bought with extra resources alone, so the Alliance took on a portfolio of innovative research projects that would tackle core challenges and pave the way for smarter reform. These included:

Case Studies

Optimising Service Channels

**CHALLENGE**
The department sought to find an effective, cost-efficient means of motivating citizens to embrace digital self-service transactions such as its Express Plus mobile apps.

**APPROACH**
The Alliance co-designed a set of messages based on behavioural economic principles – including opportunity cost and social norm messaging – to promote the uptake of the Express Plus apps. Messages were then tested in a number of real-life service settings.

**BENEFITS**
CSIRO’s expertise in psychology and statistical modelling helped design and quantify the effectiveness of these messages, with department workers providing invaluable insights on how to test these theories in real-life service centres.

**RESULTS**
Messages about opportunity costs such as “getting back to enjoying your day” led to customers of all ages using face-to-face channels 18% less than the norm. Amongst older customers (45 and over), this messaging led to reliance on digital services rising from 38% to 50%—bringing them up to the same levels of digital reliance as their younger counterparts.

Improving website user-experiences

**CHALLENGE**
The department sought to optimise its busy website, to ensure customers could easily find information to meet their needs.

**APPROACH**
The Alliance developed LATTE, a tool which analyses the sequence and duration of page visits to measure user experience. LATTE compares patterns in how users interact with websites (such as the sequence of pages they click on) to identify when and where they might be struggling to find what they need.

**BENEFITS**
LATTE allows the department web developers to detect common website “pain points” — and make changes to content and structure based on this knowledge. For customers, this means web experiences that are more informative and intuitive — based on “feedback” from how they and others are using the site.

**RESULTS**
LATTE is now a part of the department’s workflow. CSIRO is also developing a number of commercial solutions (including cloud-hosted services) based on the tool.
Connecting with customers on social media

**CHALLENGE**
With social media starting to gain traction by 2009, the department wanted a platform that would allow its communications team to better monitor trends and engage with customers in social media forums.

**APPROACH**
The Alliance created Vizie, a web-based platform that monitors customer feedback across social media channels. Vizie uses natural language processing to group content according to topic, as well as providing features directly tailored to the department’s auditing and reporting requirements.

** BENEFITS**
The platform contributed to the department’s reputation for providing timely and comprehensive digital responses to issues.

**RESULTS**
The department continues to use Vizie to run social media management for Centrelink and other major programs. CSIRO and the department are looking at further applications including integration with WeFeel, a CSIRO tool that tracks the mood and emotions of social media communities.

Helping Australians affected by natural disasters

**CHALLENGE**
The department needed rapid access to accurate, comprehensive situational awareness in the event of a natural disaster or other emergencies.

**APPROACH**
The Alliance developed Emergency Response Intelligence Capability (ERIC) software to automate information gathering and situation reporting during large-scale emergency events. The software integrates data from a range of authoritative state and federal sources into a single web-based map interface.

**BENEFITS**
The department now has improved situational awareness to support workers in responding to emergencies in a timely and effective way.

**RESULTS**
A prototype of the ERIC system was successfully tested during bushfires in the summer of 2012-13, and demonstrated the opportunities for government agencies to leverage data from emergency services agencies.

What’s Next?
The public sector must take up a proactive approach to transforming service delivery in an increasingly digital and global economy. The Alliance proved that multidisciplinary research, with a strong focus on the delivery of practical outcomes, can ensure these efforts result in sustainable efficiency dividends and targeted, enhanced support for citizens. Our collaborative and sustained experience has established our credentials as leaders in service transformation and applied research for the public sector. Both CSIRO and the department are looking forward to extending their expertise to deliver operational and quality-of-life improvements throughout Australia and the world.
AT CSIRO WE SHAPE THE FUTURE.
We do this by using science to solve real
issues. Our research makes a difference to
industry, people and the planet.

As Australia’s national science agency
we’ve been pushing the edge of what’s
possible for over 85 years. Today we
have close to 6,500 talented people
working out of 58 centres in Australia and
internationally.

Our people work closely with industry
and communities to leave a lasting legacy.
Collectively, our innovation and excellence
places us in the top ten applied research
agencies in the world.

We ask, we seek, we solve. We are CSIRO.

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ABOUT THE DEPARTMENT OF HUMAN
SERVICES.
The Department of Human Services is
responsible for the development of service
delivery policy and provides access to
social, health and other payments and
services. The department offers a range
of health, social and welfare payments
and services through the Medicare,
Centrelink and Child Support Programs,
CRS Australian and Australian Hearing.

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