Platform Technologies Research Institute

Proposed Applied Logistics
Program
Applied Logistics

• Logistics deals with the efficient flow and storage of goods from their point of origin to the point of consumption.

Almost all logistics globally is urban based and operates on numerous technology platforms.
Applied Logistics

• Logistics operates in most industry sectors.

• The type of platform solutions for logistics varies considerably both in use and quality.
Applied Logistics

• Significantly retail logistics has captured information and data for many years but has only recently begun to learn how to use it effectively.

  – Coles appointed its first data manager in 2008
  – One of Australia’s biggest auto parts retailers had never mapped its market areas or used IT platforms to optimize distribution network
Applied Logistics

- sensors and RFID have been used for tracking but not in Australia for aggregation solutions and improved functionality in transportation networks

- Applied logistics has been supply rather than demand driven and thus solutions have focused on cost reduction rather than customer demand
Proposed Focus of the program

• To improve efficiency in logistics flows along supply chain through building platforms to improve information sharing along supply chains and across supply networks.

• To build platforms to improve the efficiency of delivery systems

• To develop spatially efficient models of supply chain solutions and build platforms to support their effective management

• To develop applications that support consumer-focused logistics requirements using mobile technology platforms
Project 1 – Distribution logistics

Modelling and mapping global supply networks through the use of information technologies e.g. RFID and GPS
Project 1 - Highlights

- Prototype development of business simulation for Repco
- Integrated GIS tools and techniques for modelling demand pattern
Project 1 – Research Plan

• Optimised distribution network (6 months project with Repco)

• Building a platform to manage and optimize the effectiveness of DCs across Australia
Project 2 – Mobile Information Logistics
Project 1 Focus

The past 30 years  B2B

Suppliers  Manufacturers  Retailers  Consumers

Today

Suppliers  Manufacturers  Retailers  Consumers
Project 1 - Highlights
Project 2 – Research Plan

• Platform delivery – to expand to other OS e.g. Android and Symbion

• Extended product info – to include other product info e.g. GM ingredient, carbon footprints, etc.

• Healthy living apps – to assist consumer making healthy choices

• Trusted Information Source – to understand consumer trust/perception of information source
Project 1 – Research Plan

• Continued industry supports and funding (GS1, Nestle, AFGC)

• ARC linkage
Handset to safety

Phone camera swipe on barcode packaging could soon alert

Allergens | Hannah Donnellan

MOBILE phone technology could soon allow allergy sufferers to check whether food is safe to eat. Deakin University researchers in Burwood are developing an iPhone application that will send shoppers vital product information straight to their handset screens.

Instead of peering at the tiny print on packaging, associate professor Caroline Chan said, shoppers could swipe the barcodes of food packets with their phone camera and receive information about the product including whether it contained food allergens.

"When you read a label the product information is often so small you can barely read it or understand it," Dr Chan said. "The application will be able to show users in one or two seconds whether a food product has food allergens, including eggs, milk, peanuts, wheat, sesame, soy and seafood." Dr Chan said the barcoding system had "unlimited potential" as it could give other product data such as serving size, environmental effects and nutrient information.

"It would help consumers make quick yet informed choices about their health," Dr Chan said. The university hopes to have the iPhone application out by early next year.

Source: Press release
Two Projects!

• Logistics research and the development of appropriate platforms happens across RMIT.

• Establishing an Applied Logistics program in PTRI will facilitate more projects from those areas.

• Design is a key elements of applied logistics and this needs to be incorporated
Researchers

• The group comes to PTRI with 4 ARCs, 14 researchers, industry money, and 19 PhD scholars.