LARKi

Simon Cookes

3D land surveys online
2D feature surveys → 3D feature surveys
Paper surveys → Digital surveys
Single use → Multiple use
In-house sales & management → Online sales app
SIMON’S EXPERIENCE
Neighbourhood Information Models: the impact of 3D digital information tools on surveyor-architect-planner workflows

Cookes, S. 2017

The University of Melbourne
Australian Post-graduate Award
Masters Research
50,000 words, 300 pages
SURVEYING MARKET

Competition level: high

Annual revenue change (2012-17): -1.3%

Surveying for architects: 25.2%

(IBISWorld, Surveying and Mapping Services in Australia, 2017)
LAND SURVEY PROBLEMS

• Disconnect b/n surveyors & architects
  • 56% of Melbourne architects not heard of/used point clouds (Cookes 2017)

• Inefficient workflow
  • Slow turnaround, tedious working with 2D surveys

• Not enough information
  • 42% of planning permit applications in Melbourne require further information (PPARS 2015)

• Errors in drawings
  • Job runs at a loss, loss of client, law suits, etc.
• Connect surveyors & architects  
  • educate architects about surveyor capabilities

• Efficient workflow  
  • reduced drafting/ re-work, online transfers

• Highly detailed 3D  
  • millions of data points

• De-risked  
  • reduced human interpretation
LARKI SOLUTIONS

• For land surveyors
  • Simplifies workflow and unlocks more revenue

• For architects
  • Highly-detailed, low-risk, quick & easy surveys

• For planners
  • speeds up assessments as easier to understand
3D SURVEYS ONLINE

Land Surveyors → UPLOAD → L A R K i .com.au → VIEW → Planners → D/LOAD → Architects
PROBLEM – 2D

Painfully low detail on paper ...ggrrrrrr
SOLUTION – 3D

High detail in architects’ software!
PROBLEM - SLOW

OWNER engages Architect

ARCHITECT requests land survey quotes

3D DATA COLLECTION by Land Surveyor

2D FILE provided to Architect

3D DESIGNS created by the Architect

2D PRINTS for planning approval

Traditional 4 – 8 weeks ... arrrrghhh
SOLUTION - FAST

LAND SURVEYORS upload their files

PROPERTY OWNER contracts Architect

ARCHITECT searches the LARKI database

3D FILE is provided for download

ARCHITECT and PLANNER works off the same 3D

LARKI means architects can start in MINUTES!
<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waiting time</td>
<td>4 weeks</td>
</tr>
<tr>
<td>Developer’s holding</td>
<td>$6,500</td>
</tr>
<tr>
<td>Architect’s fee</td>
<td>$1,200</td>
</tr>
</tbody>
</table>

**VALUE**
**VALUE**

- Waiting time
  - 4 weeks
  - saved
- Developer’s holding
  - $20,000
  - saved
- Architect’s fee
  - $3,600
  - saved
MULTI-USE DATA

SURVEYOR A
2014
MULTI-USE DATA

SURVEYOR B
2015

SURVEYOR A
2014
MULTI-USE DATA

SURVEYOR B
2015

SURVEYOR A
2014

SURVEYOR C
2016
### MULTI-USE DATA

<table>
<thead>
<tr>
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<th>SURVEYOR B</th>
<th>SURVEYOR C</th>
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<td>2016</td>
</tr>
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</table>

Same data, Same work, Many sales, More profit.

Upload your point clouds, LARKI can sell multiple times for you.
MULTIPLE SALES

POINT CLOUD SALE e.g.

Traditional one sale per data collection

One off sale $3,500

LARKI multiple sale per single data collection

6 months old $2,520 10% discount
1 year old $2,240 20% discount
2 years old $1,960 30% discount

Total over 3 years $6,720 192% x revenue
LARKI as a sales channel for land surveyors:

**ADDITIONAL INCOME**
Unlock additional income from old work, LARKI re-sells work you have already done.

**STABALISED INCOME**
Keep staff productive by scanning and uploading in quiet times, LARKI make future sales for you.

**GROWTH WITHOUT MARKETING**
No need to promote to architects, LARKI does the selling for you.

**SIMPLIFIED WORKFLOW**
Standardised job requirements, LARKI manages clients, distribution and payments for you.
ARCHITECT’S 3D

Software: Revit
Showing: 3D point cloud & Revit modelling
94% Melbourne architects use 3D tools (Cookes 2017) >55% use BIM tools = 35% Revit + 20% ArchiCAD
PLANNER’S 3D

Software: Urban Circus Urban Engine
Showing: existing/assessing/approved/construction
Go to larki.com.au, put in:
Address,
Map survey area...

On top of **Point Cloud**, also:
3D Surface
3D BIM
3D Interior Model
2D Title Re-establishment
2D CAD Outlines

We get from our database, or source new surveys.
UPLOAD NOW so LARKI can sell for you:

- First-in has exclusive right for re-selling that area
- $100 / 3000m² point cloud to LARKI spec
- PLUS 80% margin of each re-sell price

*above are limited time offers*
HURRY

UPLOAD NOW!

Don’t miss out.

Already have significant amounts of point clouds for Port Phillip & Stonnington.

Aiming to have all of Melbourne by 2018.
Use LARKI as your survey SALES CHANNEL

- Success from LARKI:
  - Quicker workflow
  - More impactful
  - Less RFIs
  - Happy staff
  - Happy client
  - Job profits

- Avoid bad surveys:
  - Law suits, lost clients, run jobs at a loss...
FURTHER RESEARCH

LARKI x academic researcher?

• Quantitative experiments:
  • Time efficiency of:

  **3D workflow**
  Point cloud > Revit > 3D statutory planning
  **VS**

  **Traditional workflow**
  2D PDF > AutoCAD > 2D statutory planning

• Action research / case studies
  • Quantitative & Qualitative
“Civilization advances by extending the number of important operations which we can perform without thinking of them.”

Alfred North Whitehead, 1911
Grow your land surveying business with LARKI