



GAIA RESOURCES

Digital Technology in Natural Resource Management



Piers Higgs
Gaia Resources

Presented at Perth Zoo, 10th April, 2018.



DISCLAIMER

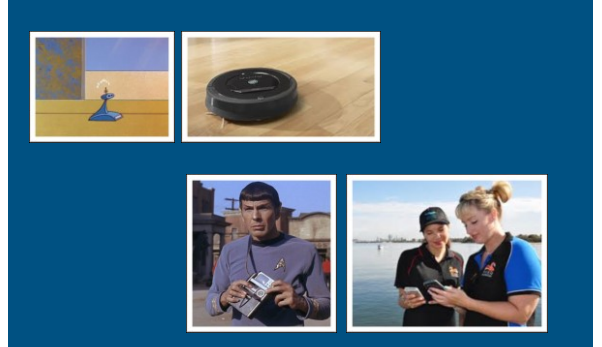
There are no magic bullets



FLYING CARS AND JET PACKS



FLYING CARS AND JET PACKS



INTRODUCTION

Today we'll cover:

- ✓ Flying cars and jet packs
- Who are Gaia Resources?
- Things to consider around technology
- Success stories
- Take home messages



GAIA RESOURCES

Who are we?

GAIA RESOURCES

Who are we?

- Environmental technology company with staff based in Perth, Brisbane and Hobart
- 15 years of operation – starting as a spatial company and evolving into what we do today...

Environmental Technology

NRM

Citizen Science

Collections

INTRODUCTION

Today we'll cover:

- ✓ Flying cars and jet packs
- ✓ Who are Gaia Resources?

- Things to consider around technology
- Success stories
- Take home messages

CONSIDERATIONS

Technologies in General

- Consider the innovation adoption lifecycle – and not all innovations get through the Lifecycle

INNOVATION ADOPTION LIFECYCLE

CONSIDERATIONS

Drones

Apps

Systems

INNOVATION ADOPTION LIFECYCLE

CONSIDERATIONS

Drones

- Great tools for capturing high resolution data, across relatively small areas, and in dangerous situations.

CONSIDERATIONS

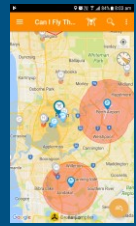
Drones

- You will need accreditation from CASA – check out <https://linyuti.com/yacpaj3a> for details
- If flying for work purposes, weight plays a role.
 -  < 2kg
 -  > 2kg
- Be informed about what you need to do, and do it, or get a group to do it for you that has the right accreditations.

CONSIDERATIONS

Drones

- There are also various restrictions on where you can fly – check the “Can I Fly There” mobile app
- Also consider:
 - Volumes of data that can be generated – what will you do?
 - Upkeep on the drones, replacements



CONSIDERATIONS

Apps

- Apps have become a very popular way of enabling a number of things, including:
 - Data collection
 - Providing information and education
 - Being accessible at all times



CONSIDERATIONS

Apps

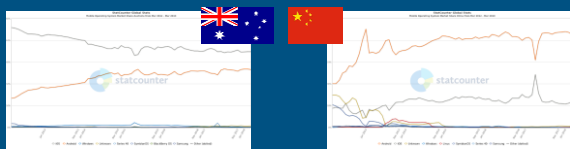
- You must consider:
 - Engagement** – it is not a “build it and they will come” tool, there has to be a reason why, and support
 - Maintenance** – operating systems release regular, app-breaking updates



CONSIDERATIONS

Apps

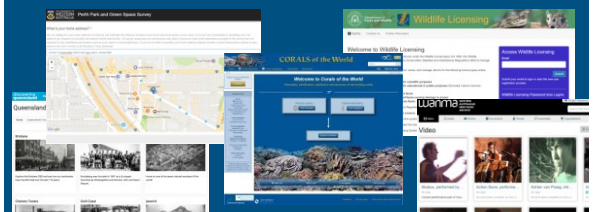
- You must consider:
 - Audience** – public expect “native apps” but teams can use cross-platform technologies
 - Usage** – app platforms eg iOS, Android, Windows, Blackberry – which varies by country



CONSIDERATIONS

Systems

- This is a catch-all for a range of things – but most of the time these days we are working and building “web based” systems



CONSIDERATIONS

Systems

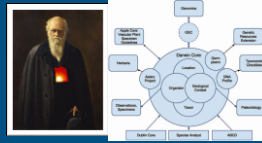
- You can often get a grant to **build** the system, but not to **maintain** it – collaboration!
- Consider the **Software Development Life Cycle** – and note that the lifespan of software is considered by many to be around 6-8 years



CONSIDERATIONS

Systems

- Data standards** are also really important to consider if you want to make your data interoperable with other systems, other groups, or just to help future proof it!



CONSIDERATIONS



- Great tool when fit for purpose
- Guidelines, CASA certifications
- Data volumes
- Upkeep / replacement
- Everyone wants one!
- Think about your audience
- Engagement
- Maintenance over time
- Great for consolidation
- Expensive to build, consider maintenance
- Collaboration
- Data standards
- Replacement

INTRODUCTION

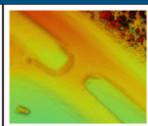
Today we'll cover:

- Flying cars and jet packs
- Who are Gaia Resources?
- Things to consider around technology
 - Success stories
 - Take home messages



SUCCESS STORIES

Drones – Shark Bay Drone Survey



SUCCESS STORIES

Apps - Microblitz



SUCCESS STORIES

Systems - GRID

- The Geographic & Reporting Information Database (GRID) is summarised as an easy-to-use, online GIS for Natural Resource Management (NRM) groups.



SUCCESS STORIES

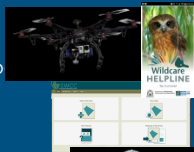
Systems - GRID



INTRODUCTION

Today we'll cover:

- Who are Gaia Resources?
- Flying cars and jet packs
- Things to consider around technology
- Success stories
- Take home messages



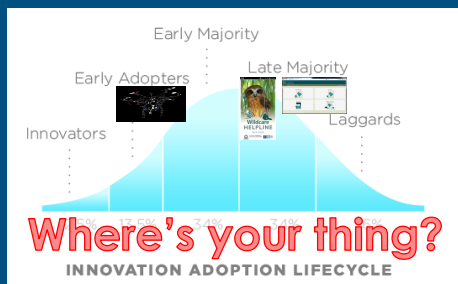
TAKE HOME MESSAGES

There are no magic bullets



TAKE HOME MESSAGES

Bright shiny things



TAKE HOME MESSAGES

Engagement is key



TAKE HOME MESSAGES

Think longer term

- Data Standards
- Maintenance
- Collaboration



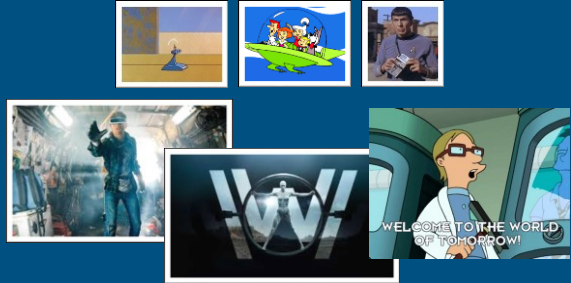


TAKE HOME MESSAGES



TAKE HOME MESSAGES

The possibilities are endless



WELCOME TO THE WORLD OF TOMORROW!

QUESTIONS?



Piers Higgs
 (08) 92277309 or 0411 754 006
 piers@gaiaresources.com.au
 www.gaiaresources.com.au