# CreateWorld 2012

5-7 December  Griffith University  Brisbane

# Hop Around With Lester :

## *Education with Fun integrating QR, AR & AV Foundation*

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QUT Mobile Innovation Lab
www.mobileinnovation-lab.com

# Things to cover

- The Journey…
- So who is Lester ?
- Some technical stuff such as AR, QR
- The App challenges
- The findings and outcome

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CC by Thomas Hawk

CC by ucumari

# LAUREN'S FIRST COMMAND

rm -rf *

CC by paul-vallejo

- How do we turn visits to library into a fun and engaging activity for kids, schools and families ?
- How do we make the experiences educational ?

# The design journey

- Specifications gathering through interviews and focus group (8 – 12 years old kids)
- Making observations in various library level and spaces
- Paper and digital storyboard prototyping
- Usability studies and functionality evaluations

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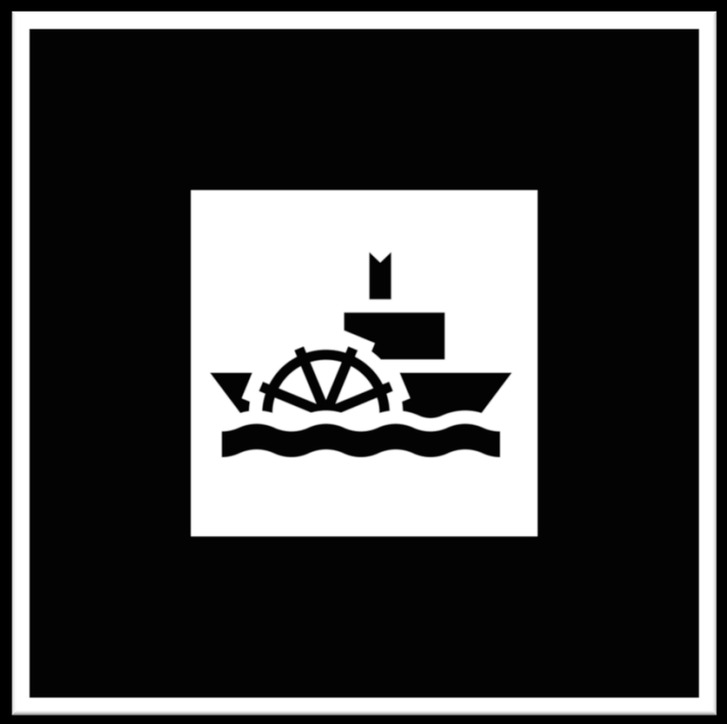
# Game design journey

- Scavenger hunt / treasure hunt like game to find QR and AR code around the library
- A series of text, video, Image and sound based challenges scattered in the library



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# Game mechanism

- Using Points and Achievements Stars
- Using a special Image and sound challenge
- Using a character to guide the user

# So Who is Lester ?

- An alien ?
- A cockroach ?
- Or a Book Worm ?

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Secret
SLQ
SL
State Library
of Queensland
Queensland Government
© The State of Queensland (State Library of Queensland) 2012

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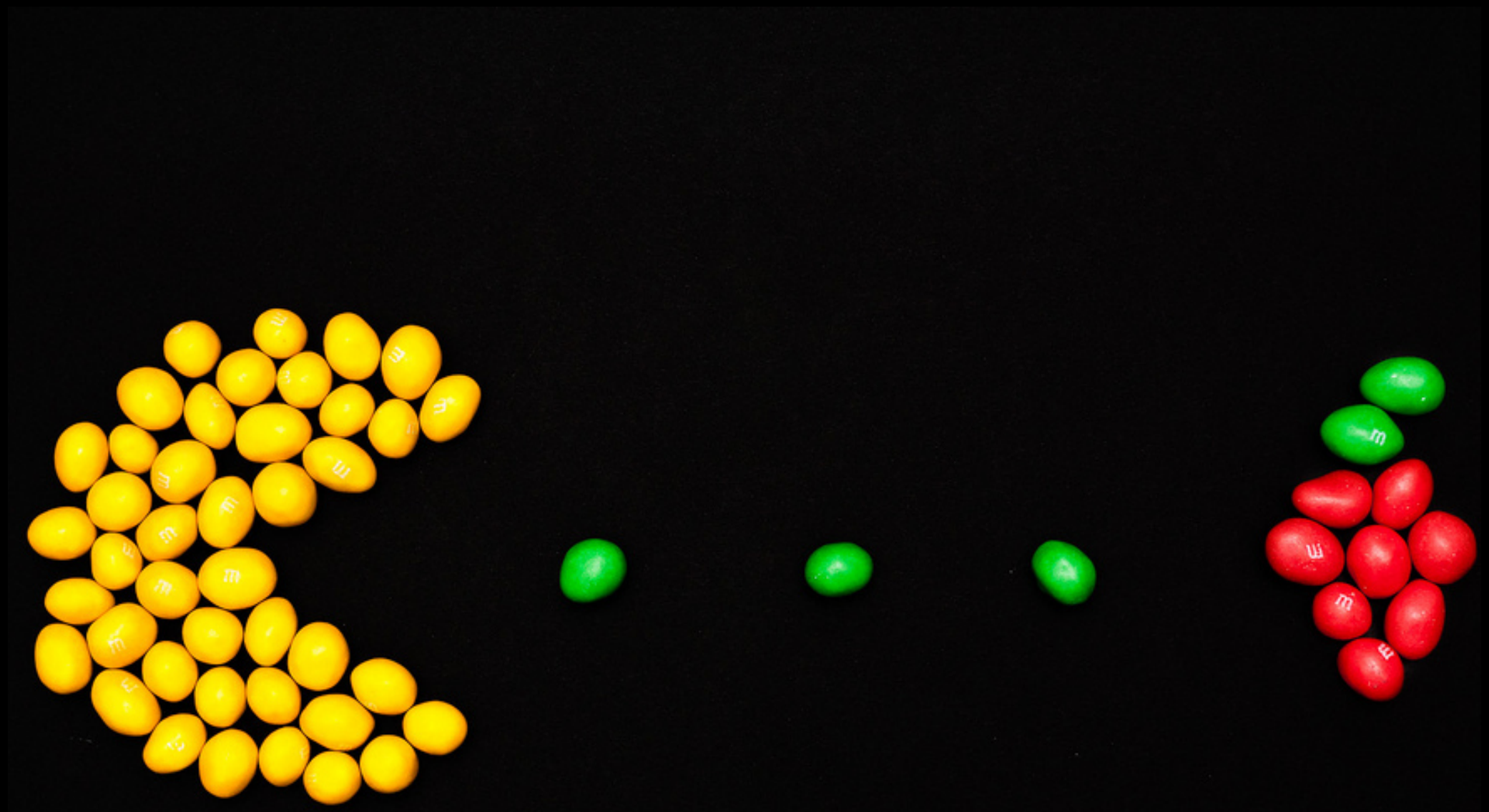
Oops you guys are trapped…



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CC by ramyo

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START

Book of mystery

HELP ME!

ARE YOU AT STATE LIBRARY?

YES

NO

HOME
WHEN YOU SEE EITHER OF THESE SYMBOLS PRESS THE MATCHING BUTTON TO ENTER SCAN MODE:

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# Video challenge!

**STEP 1** - Watch this video clue →

**STEP 2** - Answer the following question:

**QUESTION:**

John Oxley Library on Level 4 of State Library of Queensland is a centre for research and study of what?

| | |
|---|---|
| The Queensland floods | Australian literature |
| The history of Australian explorers | All things relating to Queensland |

# camera challenge!

You have found a camera challenge!
You will need to take a picture of your face or your friend's face and resize it to fit it into the supplied image!

When you are done you can share it with other players by bumping it to them!

# Audio challenge!

This is worth 250 points!
You need to be as quiet as a mouse and find the code to shut this challenge off!

If you are too loud you will not get the 250 points so off you go and KEEP IT DOWN!!!

A CLUE!

NEXT

ITS OK TO WHISPER!!

TOO LOUD!!!

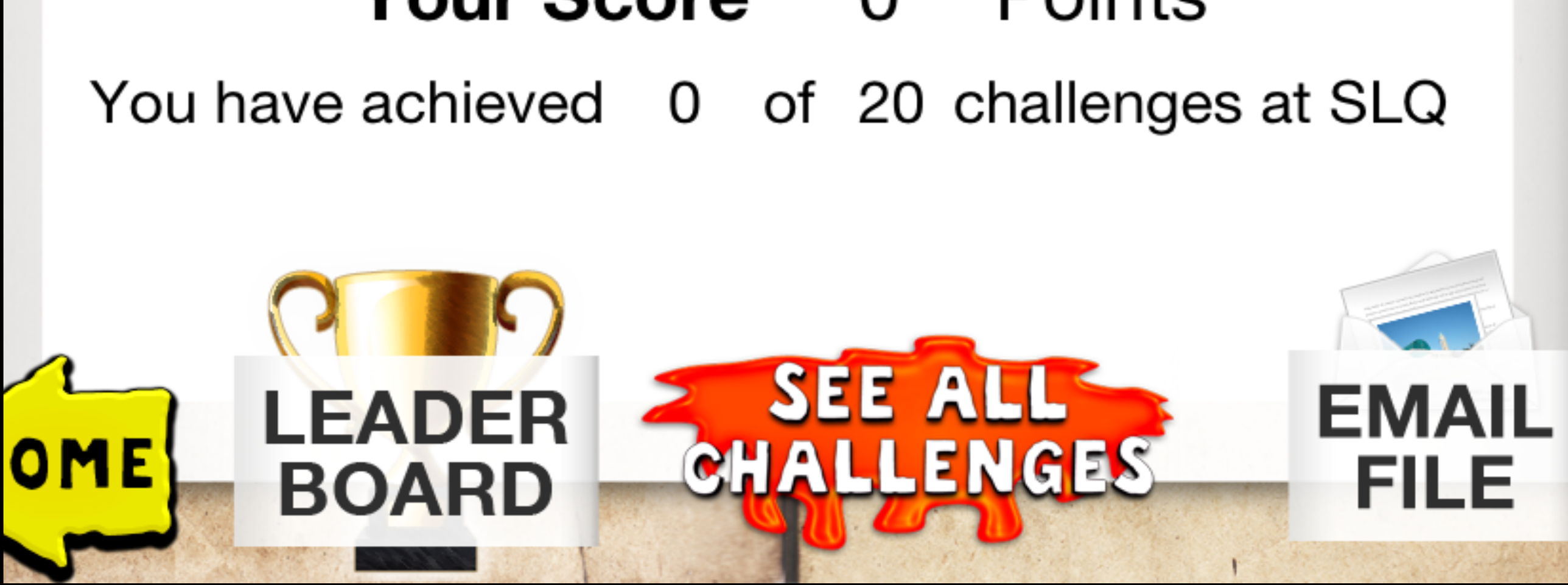
I GIVE UP

# Book of Mystery

## Welcome dfgg by-2598

**Your Score** 0 Points

You have achieved 0 of 20 challenges at SLQ



BACK

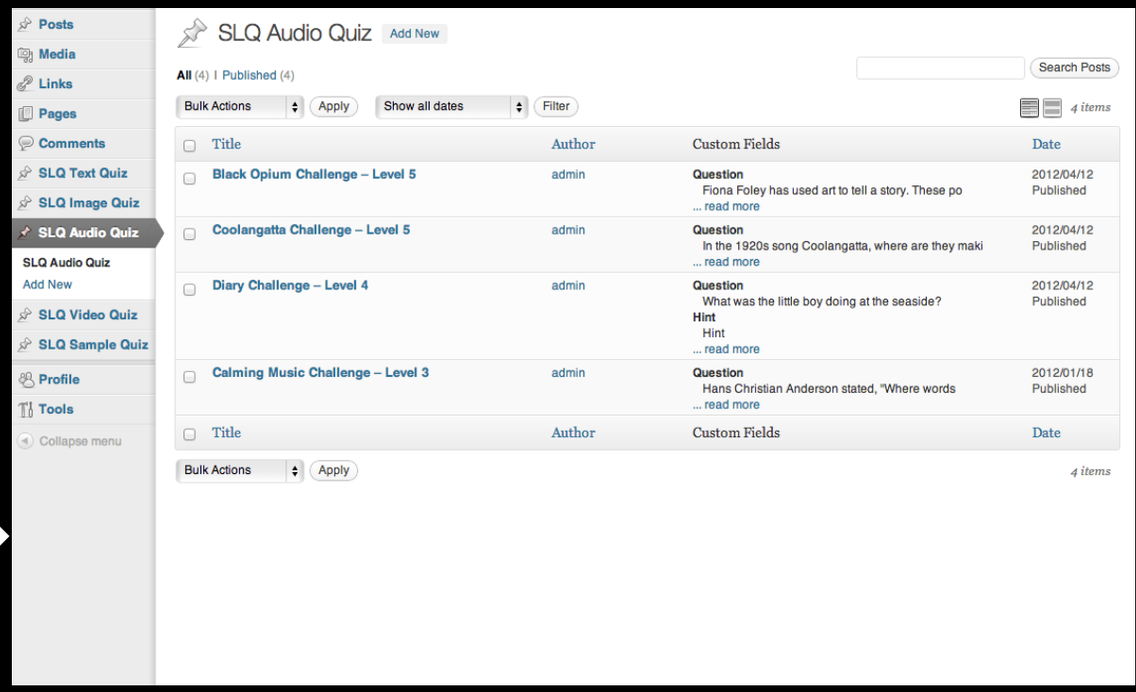
# Help me!

HOW TO PLAY

- These challenges are too hard (or too easy) for me!
- I've already completed a challenge in a quest a long time ago, do I have to do it again?
- Do I have to finish the game in a specific amount of time once I start it?
- Why isn't my player name/nickname showing up on the leaderboard?
- How to Reset the app ?

# The technical stuffs

- Consists of a native iPhone mobile application and a Wordpress CMS Backend

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# The technical stuffs

- Using QR codes to translate code to challenges, hints and knowledge (Did you know)

- Using AR markers to show interesting facts

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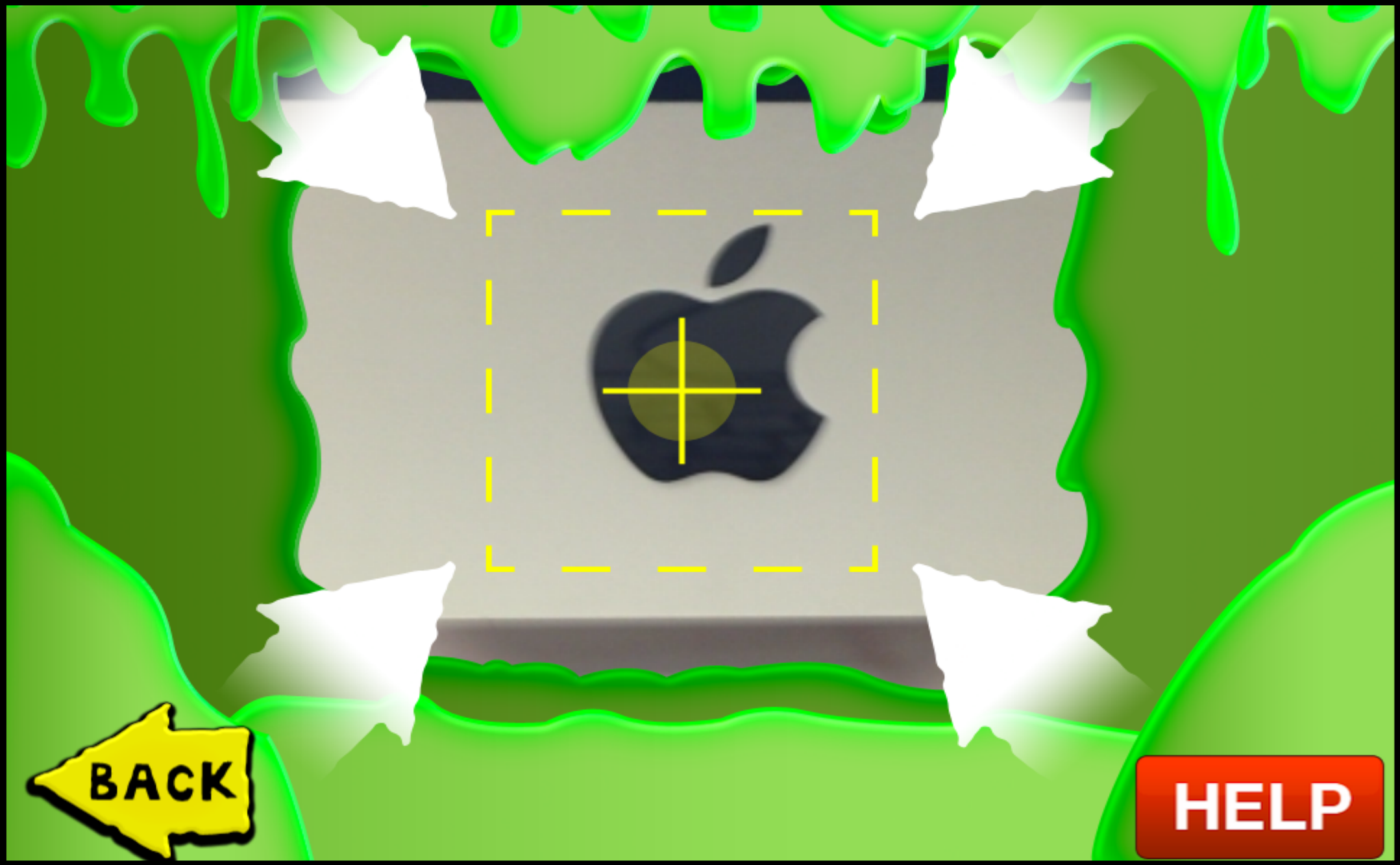
# QR

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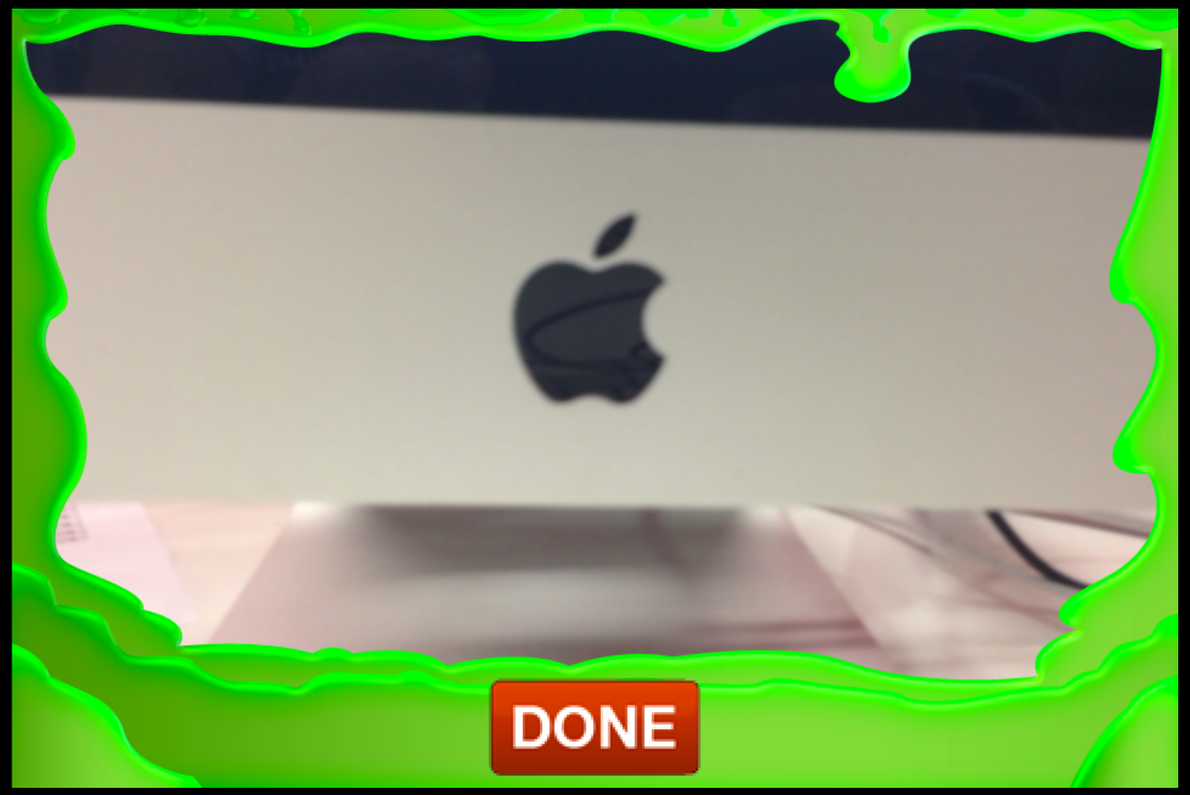
# History through the lens (AR)



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# AR Demo

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# The App Challenges

- Making it right for the target audiences
- Deployment of QR codes
- Providing a more engaging experiences

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# Usability testing

- 7 participants (6-14 years old) took part in the initial usability study for prototype feedback
- The prototype is a simplified version of the application built using iOS storyboard
- Designers provided participants with the prototype to try out and observed interaction, jelly beans is used to keep the participants focused

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# Deployment

- 20 game challenges were created and scattered around the library.
- 20 iPod touches were provided for those who didn’t have iOS devices
- During the last school holidays, feedback gathered from players, their parents and librarians

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# Feedback

- Initial feedback from librarians was positive, with players and parents reporting they enjoyed the experience

- Some difficulties were reported which included confusion of where players should first begin the game

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# Feedback

- A number of improvements or suggestions were given including the request of a “cheat sheet” (i.e. a list of challenges in the library and their correct answers) to help aid their children when looking for the next challenge

- Other feedback included some confusion around scanning QR codes that weren’t part of the game

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# Outcome

- This app had been in the finalist of the 2012 Australian Mobile Awards
- A short paper entitled “**Mystery at the library : encouraging library exploration using a pervasive mobile game**” was presented in the proceedings of the 23th Annual Conference of the Australian Computer-Human Interaction Special Interest Group (CHISIG) of the Human Factors and Ergonomics Society of Australia (HFESA).

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Thank You

Question ?

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