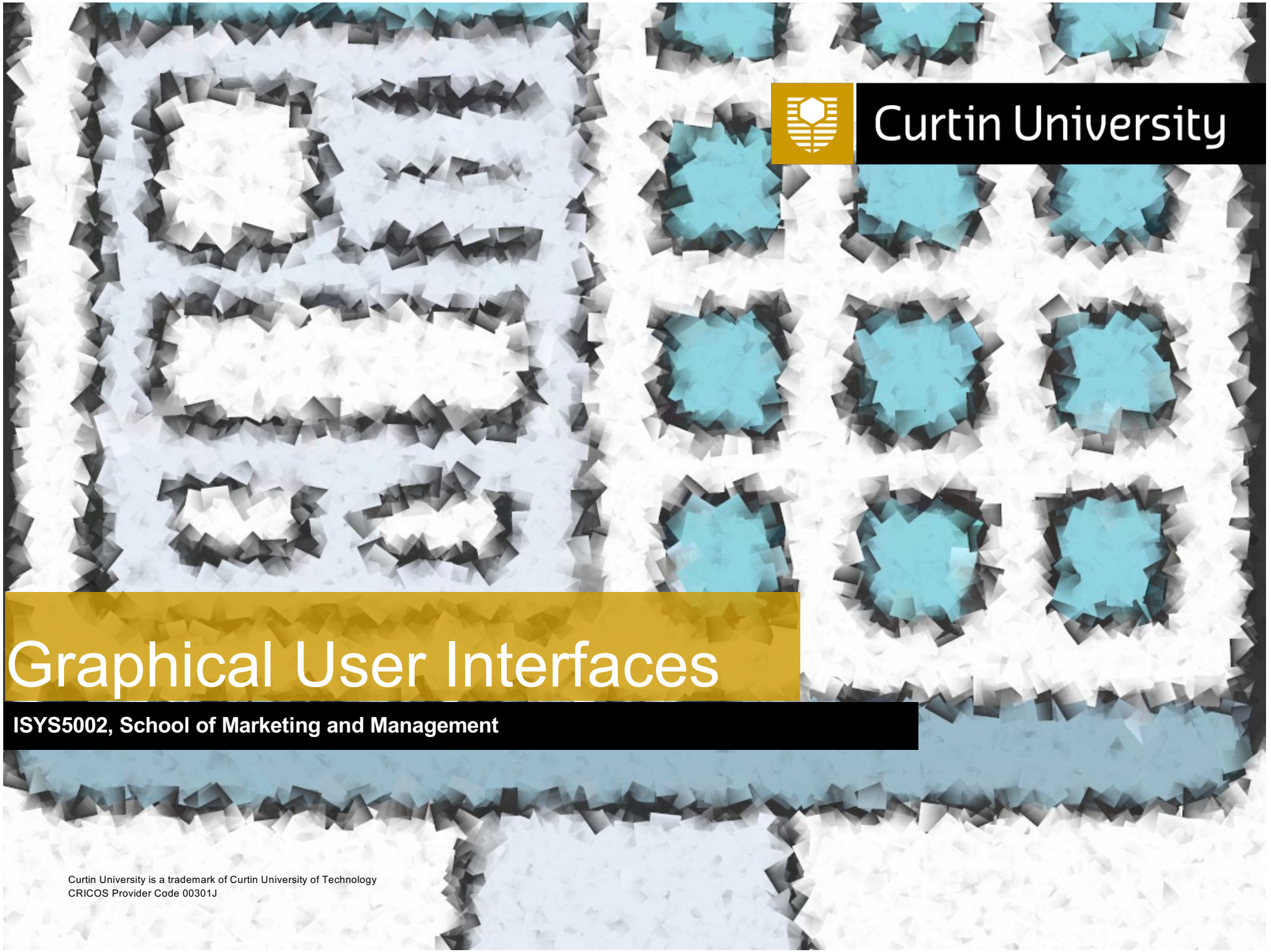

Graphical User Interfaces

ISYS5002, School of Marketing and Management

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I acknowledge the traditional custodians of the land on which I work and live, and recognise their continuing connection to land, water and community. I pay respect to elders past, present and emerging.

GUI - History

- Punch Cards
- Text-Based
- Sketch Pad (Ivan Sutherland's light pen)
- Stanford Online System (hyperlinks)
- Xerox PARC

GUI – Key Features

- Windows
- Menus
- Icons
- Controls

GUI – Interactive Elements

- Pointers
- Cursor
- Insertion Point
- Selection
- Adjustment Handle

Python Options

- Script Based
  - Tkinter
  - PyQt
  - wxPython
  - PySide
  - Kivy
  - PySimpleGUI
  - Streamlit
- Notebooks
  - ipywidgets (within)
  - Colab forms
  - Visualisation Library
  - Anvil (link, webapp)

Common Controls/Widgets

- Buttons
- Radio buttons
- Check Boxes
- Text Boxes
- Sliders
- Date Pickers
- Colour Pickers
- Tabs

GUI Considerations

- Same across all computers
- How to put ‘widgets’ together
- Prototype with mockups, wireframes
- Intuitive User Experience
- Capture Inputs
- Display Outputs
- Commercial vs OpenSource
- Desktop vs Mobile vs Web App

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