Generative Design Systems
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Introduction
Timetable

› Lectures/Labs: Mondays 2–5pm in 262

› Assessment
  ‣ Assessment will be based on a semester-long project to research, design and prototype a mass customisation design system for a type of product of your choosing.
    ‣ Assignment 1: Research
    ‣ Assignment 2: Design
    ‣ Assignment 3: Prototype
Lecture Topics

- Generative Design Systems
  - Design Rules and Grammars
  - Evolutionary Design Systems
  - Design Agents and Social Creativity

- Mass Customisation
  - Flexible Manufacturing
  - Product Configurators
Assessment

- The following components make up the assessment for this unit of study:
  - Participation (10%)
  - Tutorials (10%)
  - Assignment 1: Research (20%)
  - Assignment 2: Design (20%)
  - Assignment 3: Prototype (40%)
Mass Customisation
Dell™ Inspiron™ 1501
Dependable starter notebook - good for basics

A$799
Delivered. (Price Inc. Free Delivery).
Build Yours with Windows® XP
Product Details

Dell™ Inspiron™ 1501
Everything you need for word processing, e-mail, and web browsing

A$949
Delivered. (Price Inc. Free Delivery).
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Product Details

Dell™ Inspiron™ 6400 UMA
Be a pack rat and keep all your files with increased storage

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Product Details

Dell™ Inspiron™ 1520
Action junkie with 15” viewing excitement

A$1,199
Delivered. (Price Inc. Free Delivery).
Build with Windows Vista® or Windows® XP
Product Details

DELL SPECIAL OFFERS
Free Upgrade to Genuine Windows Vista™ Home Premium.
Offer ends 25/10/2007
More Details

DELL SPECIAL OFFERS
Free Upgrade to 24 Months McAfee Security Center.
Offer ends 25/10/2007
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DELL SPECIAL OFFERS
Free Upgrade to 15 Months McAfee Security Center.
Offer ends 25/10/2007
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DELL SPECIAL OFFERS
Free Upgrade to 160GB Hard Drive.
Offer ends 25/10/2007
More Details
Create Your Own
Original Custom Products in Minutes

Choose Your Blank Canvas and Start Creating

APPAREL

PRINTS & CARDS

MUGS & CERAMICS

FUN STUFF

KIDS & BABY

HOME DECOR
BUILD & PRICE A MINI.
JUST THE WAY YOU WANT IT.
Computational Creativity and Creative Computing
Creativity

- Creativity is the production of works that are **novel** and **appropriate**.
  - **Novel** means that a creative work must be new in some way that can be appreciated.
  - Works that are **similar-but-different** are often appreciated the most.
  - **Appropriate** means that a creative work must be valuable within its cultural domain.
    - **Value** varies considerably between domains, e.g., aesthetic, emotional, intellectual
Creative Systems

- Creative systems are processes that can be used to produce creative works.
  - The processes involved can be anything that is capable of producing novel outputs.
- Computers are ideal for implementing creative systems, but they are not the only way.
  - For example, Mozart famously developed a system using dice to compose music.
Where’s the Creativity?

Creative System
Where's the Creativity?

Human

Simple Tools

Creative System

Machine
Where’s the Creativity?

Human

Simple Tools

Creative System

Complex Machines

Machine
Where's the Creativity?

Human

Simple Tools

Creative System

Complex Machines

Machine

Computer Simulation
Where's the Creativity?

Creative System

Human

Simple Tools

Complex Machines

Computer Simulation

Machine

Artificial Intelligence