DESIGN PROCESS: NAVIGATION AND INTERFACE DESIGN

Course Code:CIS121

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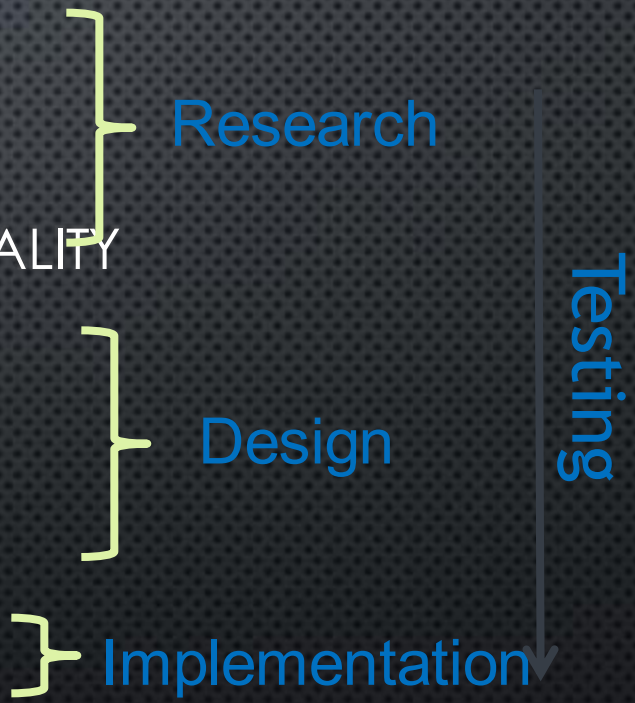
Learning Outcomes

- By the end of this topic, students will be able to:
  - Explain the importance of site structure and navigation in the context of user-centred web design
  - Use a site structure diagram and wireframe models to specify the design of a website
  - Explain the major principles of interface design for websites

Web design process

- This topic explores the design stage of the process:
  - Defining goals
  - Learning about users
  - Defining content and functionality
  - **Designing site structure**
  - **Designing navigation**
  - **Interface design**
  - Writing (X)HTML and CSS



DEFINING CONTENT AND FUNCTIONALITY

- AT THE END OF THE RESEARCH STAGE THE OUTCOME WAS A COLLECTION OF CONTENT AND FUNCTIONALITY REQUIREMENTS.

Awards

Bangles

Pendants

The jewellery making process

Brooches

Metals used to make the jewellery

Contact us

Galleries exhibiting the Jewellery

Customer testimonials

Exotic woods used to make the jewellery

Necklaces

Betty's biography

Jim's biography

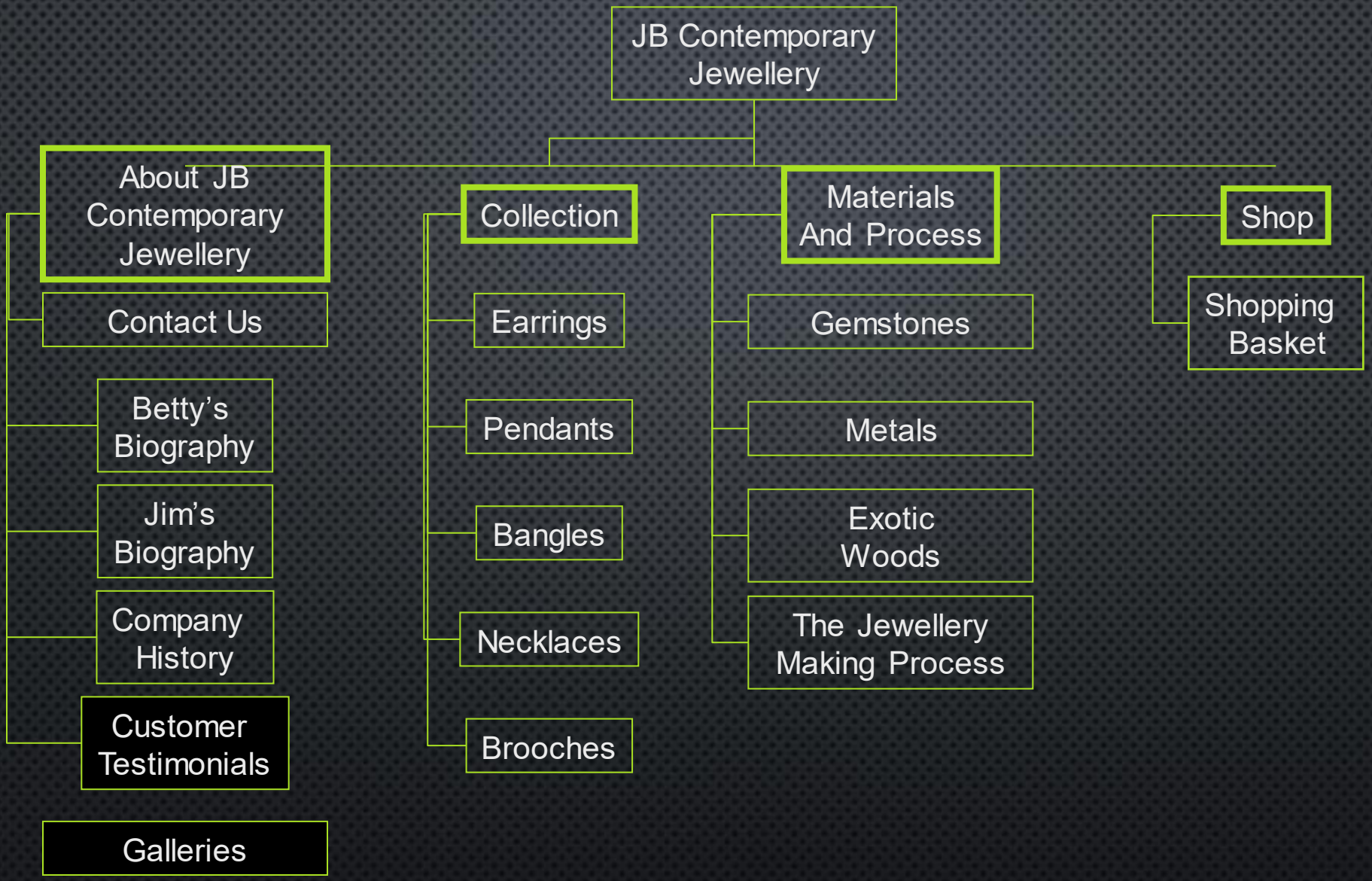
Gemstones used to make the jewellery

Shopping Basket

Earrings

Hierarchies

- Websites are organised hierarchically
  - Users are familiar with hierarchies
- Designing the site structure involves:
  - Organising the content chunks into sections and sub-sections
  - Labelling the sections

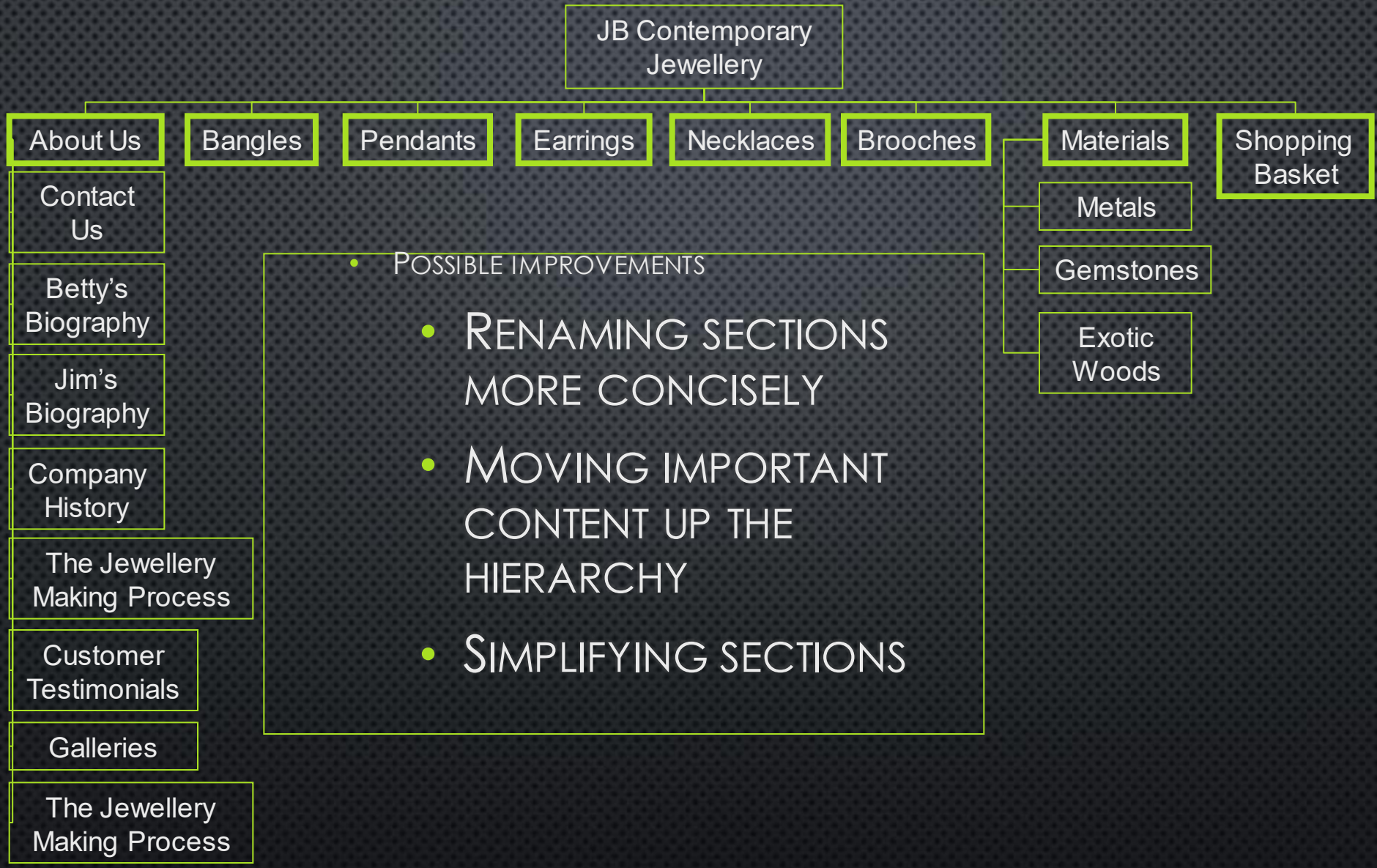

JB Contemporary Jewellery
About JB Contemporary Jewellery
Contact Us
Betty's Biography
Jim's Biography
Company History
Customer Testimonials
Galleries
Collection
Earrings
Pendants
Bangles
Necklaces
Brooches
Materials And Process
Gemstones
Metals
Exotic Woods
The Jewellery Making Process
Shop
Shopping Basket

Designing Site Structure

- Designing Site Structure is an important stage
  - Defines navigation
- Can't rely on search facilities
  - Not all users will use a search facility
  - Searches don't always return useful results
  - Only useful for large sites
- Designing site structure is often challenging
  - Information doesn't always fit neatly into clearly separate categories
  - Section headings can easily be confusing

Site structure design principles

- There are a number of principles that can be used when designing site structure
  - Each content item should belong in its section
  - Section labels should clearly describe the content
  - Section labels with the word 'and' should be avoided
  - Labels should be as short as possible
  - The most important content should be at the top level of the hierarchy
- Question - Look back at slide 7 and the site structure diagram for JB contemporary Jewellery. How could you re-design the proposed site structure to improve it?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Metals
Gemstones
Exotic Woods
POSSIBLE IMPROVEMENTS
RENAMING SECTIONS MORE CONCISELY
MOVING IMPORTANT CONTENT UP THE HIERARCHY
SIMPLIFYING SECTIONS

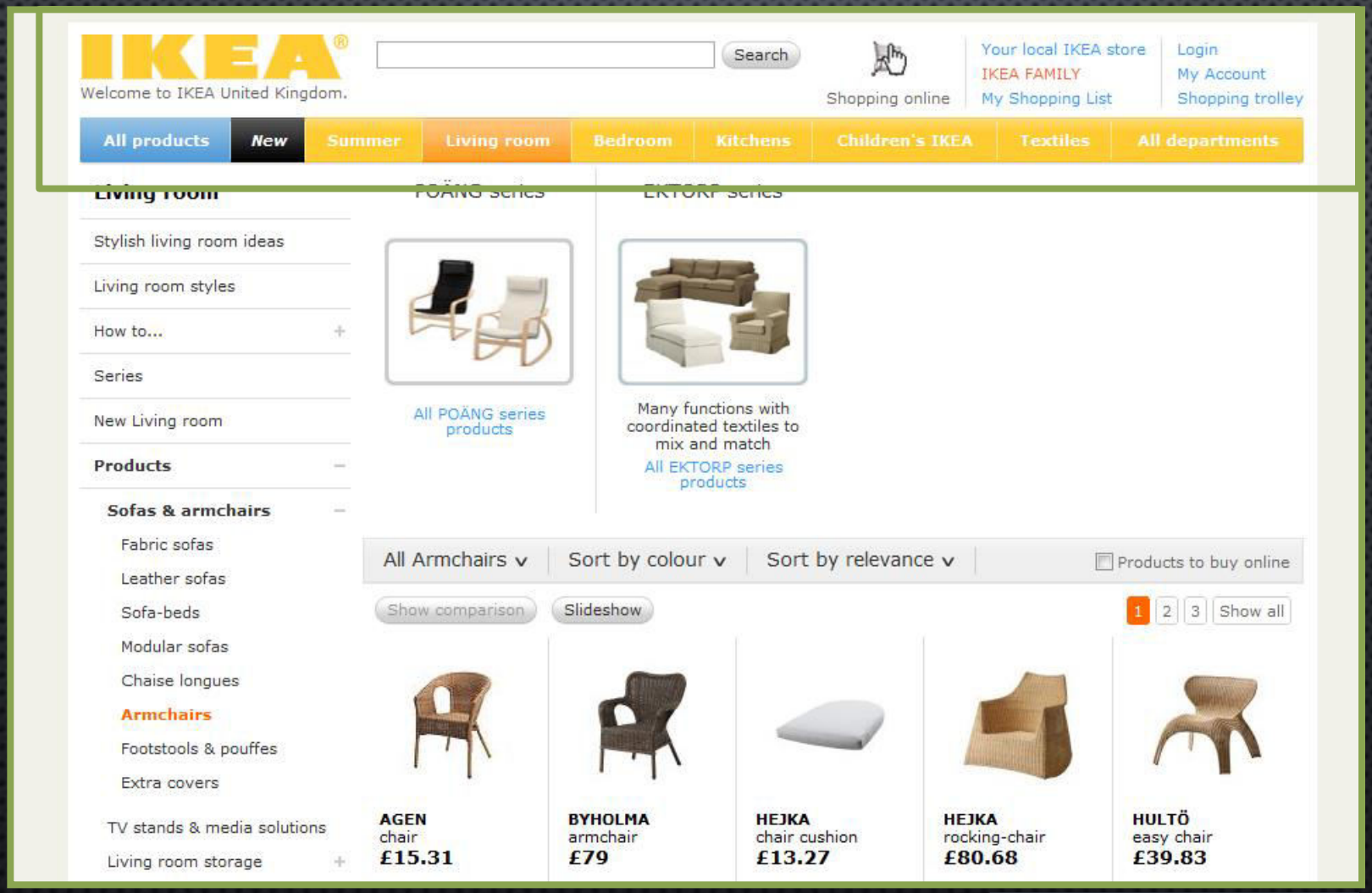
Involving users – card sorting

- Card sorting is a technique to involve users in designing site structure
  - Each content chunk is written on an index card or post-it note
  - Users are asked to group related items and give each group a name
  - A record is made of the card sort
  - Different card sorts by different users are compared
- Card sorts can also be 'closed'
  - Users sort cards into pre-defined sections

Designing Navigation

- Navigation defines how users find their way around a website
  - Developed from site structure
- Navigation plays an important role in
  - Telling the user what they can do on a site
  - Telling the user where they are in the site structure
- Commonly used navigation systems
  - Persistent navigation
  - Local navigation
  - Breadcrumbs

PERSISTENT NAVIGATION - 1

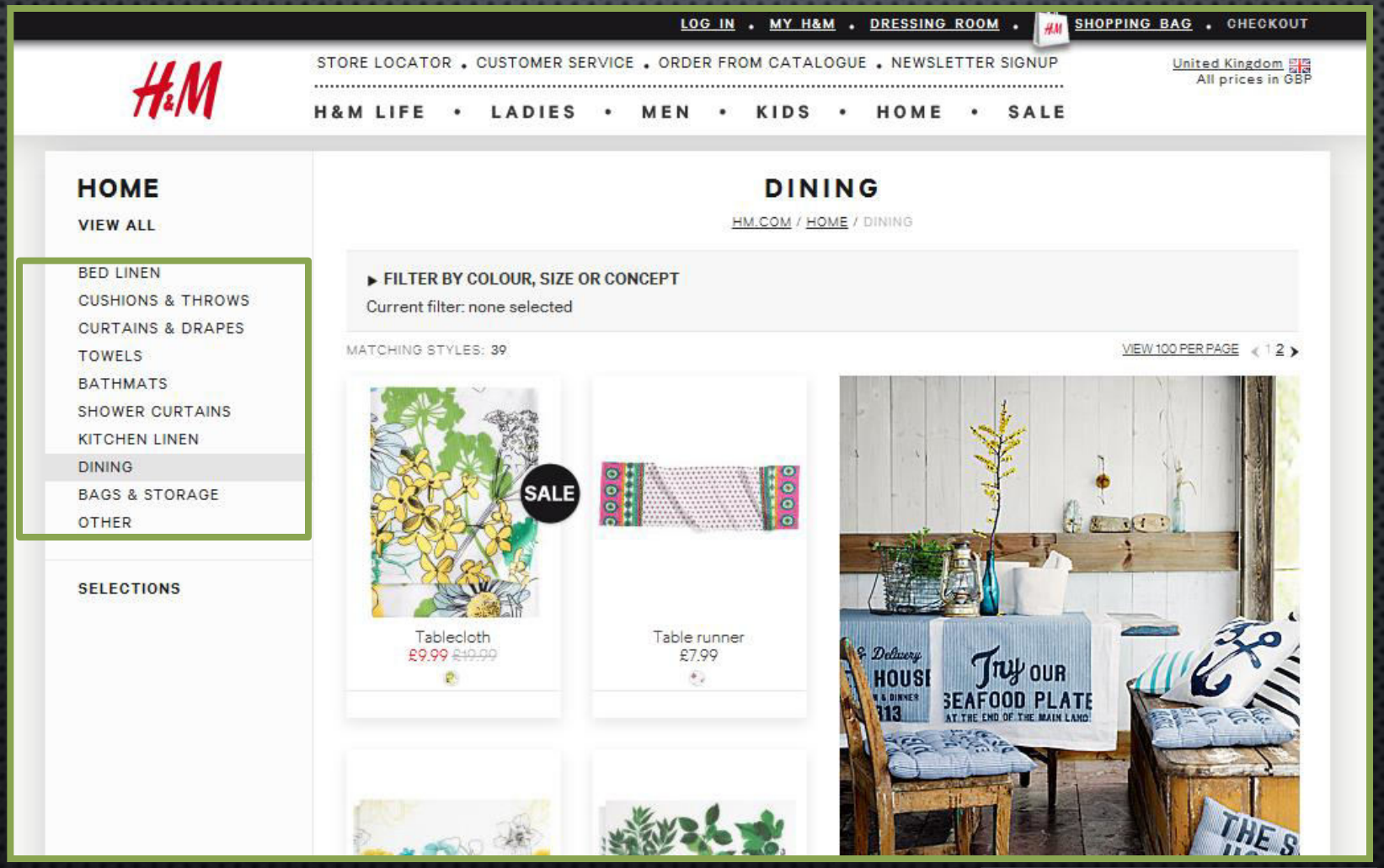


http://www.ikea.com

Persistent navigation - 2

- The navigation elements that appear on every page of a site
  - Implemented as a navigation bar
  - Large sites will have sections and sub-sections
  - Easy access to site content and functions
    - Major sections
    - Search
    - Link home
    - Functions e.g. shopping basket
  - Provides reassurance to users
    - Should be identical on every page of the site

LOCAL NAVIGATION - 1

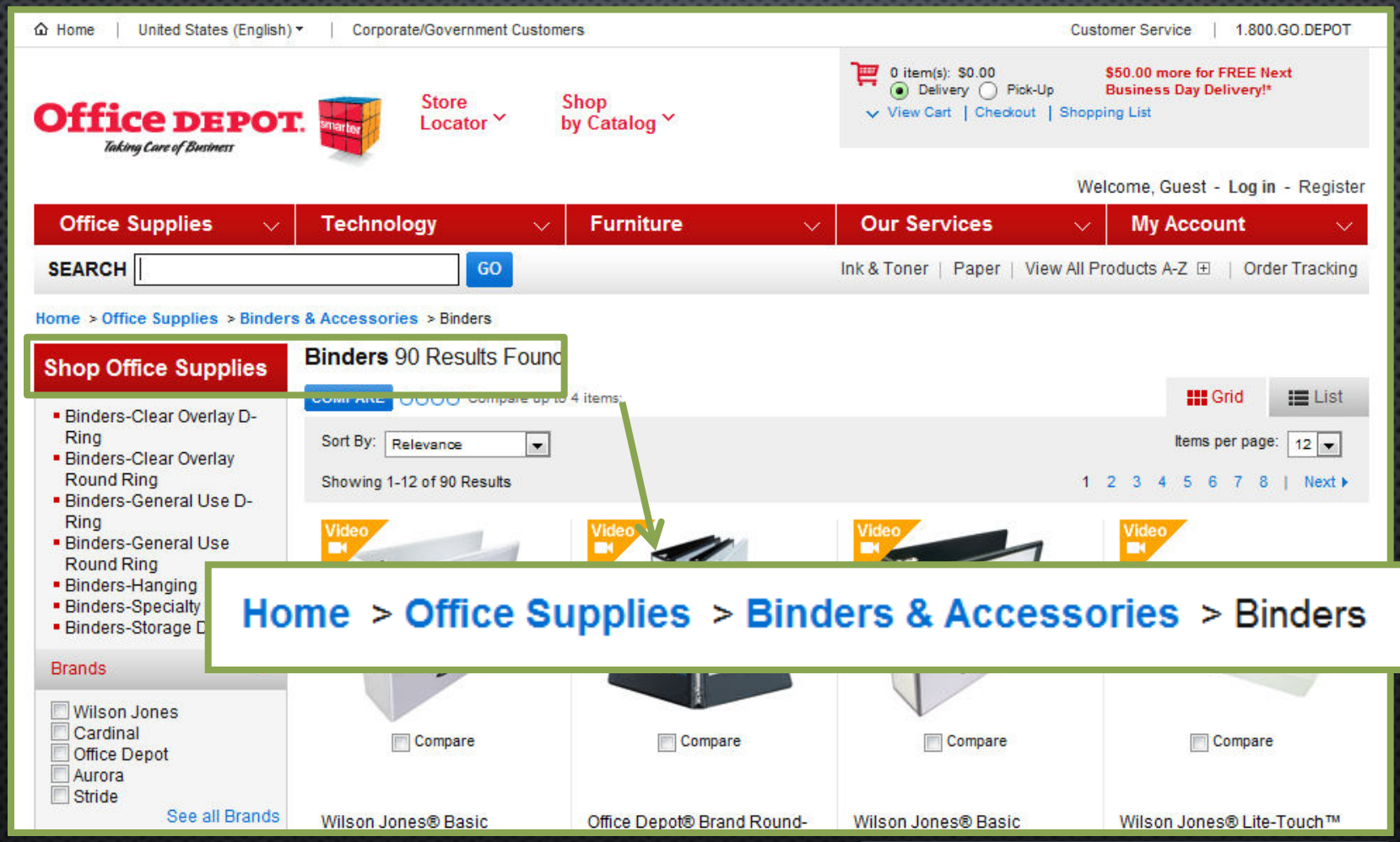


http://www.hm.com

Local navigation - 2

- Local navigation show links to pages at the current level of the hierarchy
  - Usually implemented as a separate navigation bar
  - 'You are here' indicators show user's current position
    - Visually highlighting the current page on the navigation bar

BREADCRUMB NAVIGATION - 1



http://www.officedepot.com

Breadcrumb navigation - 2

- Breadcrumb navigation shows location in the hierarchy
  - Easy to re-trace steps
- Useful in large sites with deep hierarchies
  - Not a replacement for persistent navigation
- Many sites use visual conventions
  - Angle brackets to separate items, small text, the current page is emphasised

WIREFRAME MODELS - 1

JB Contemporary Jewellery

Shopping Basket

About Us | Jewellery | Materials | Recognition

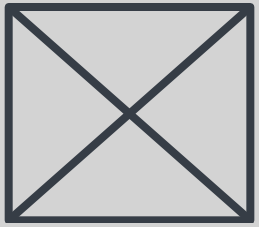
Earrings

Bangles

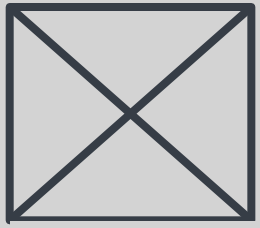
Brooches

Necklaces

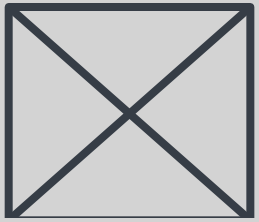
Bangles



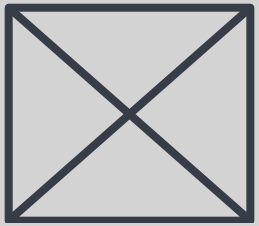
Bangle Design 1



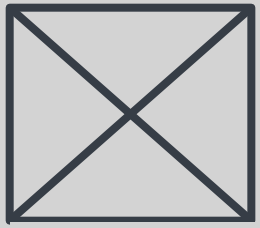
Bangle Design 2



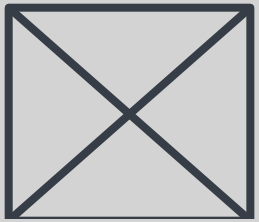
Bangle Design 3



Bangle Design 4



Bangle Design 5



Bangle Design 6

Wireframe models - 2

- Wireframe models show page level detail
  - Navigation options
  - Indicate other page level content - page title, site identity
  - Can show linear processes e.g. shopping cart
  - Not about visual design
- Produced for major pages in the site
  - Not every page
- Can be used for testing with users
  - Run through sample tasks

Interface design

- Involves taking wireframe models and producing page designs
  - Deciding on layout, colours, fonts etc.
  - Wireframe models tell us the page contents
- All important page elements should be immediately visible to users
  - The user shouldn't have to scroll to see page elements

User scan web pages

- Users scan web pages
  - Task focussed
  - Don't read pages
- Users 'satisfice'
  - Select first navigation option that seems to fit
- A user-centred page design makes it easy for users to scan pages and make choices

Visual Hierarchies

- The visual hierarchy tells the user about the meaning of page elements
- Clear visual hierarchy makes the page easy to scan
  - Grouping related items
  - Creating Contrast
  - Alignment
  - Consistency

GROUPING RELATED ITEMS - 1

http://www.play.com

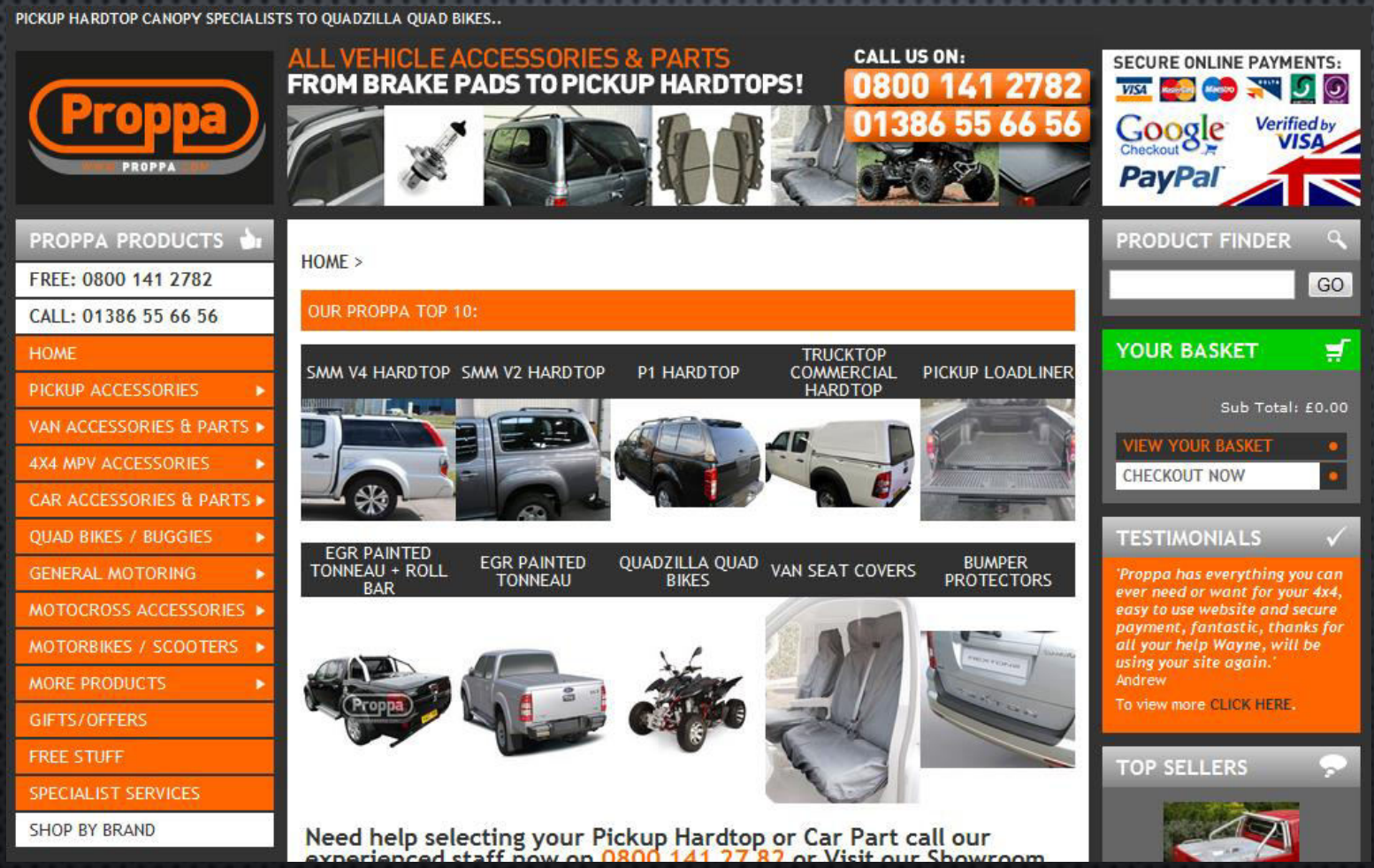
Grouping related items - 2

- Related items should be grouped visually
  - Through aspects such as position, borders and colour
  - Break a page up into distinct areas
  - Can be difficult with limited screen space
- Examples
  - Navigation options grouped in navigation bars
  - Site functions visually separate from sections

CONTRAST - 1

http://www.play.com

CONTRAST - 2

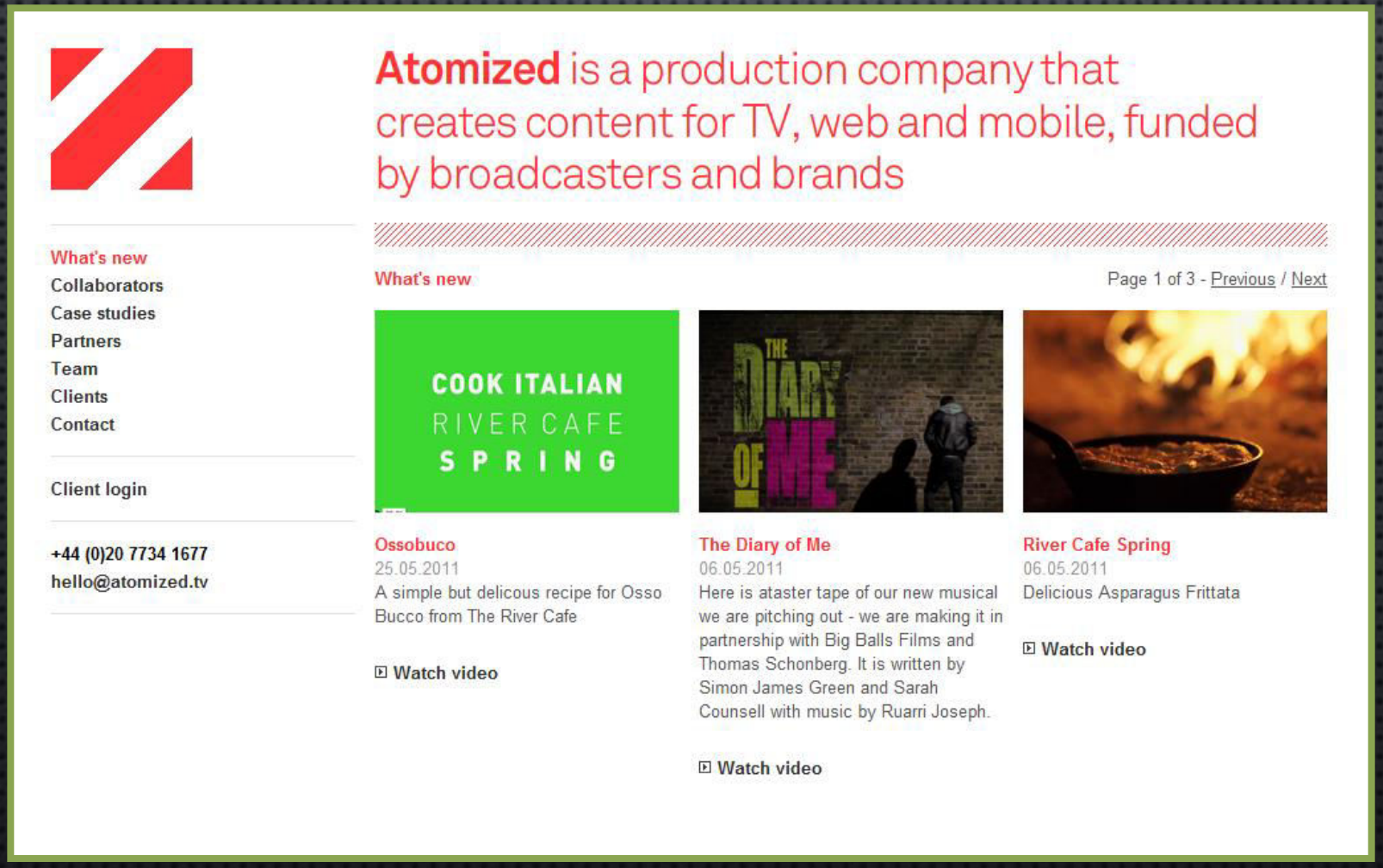


http://www.proppa.com/

Contrast - 3

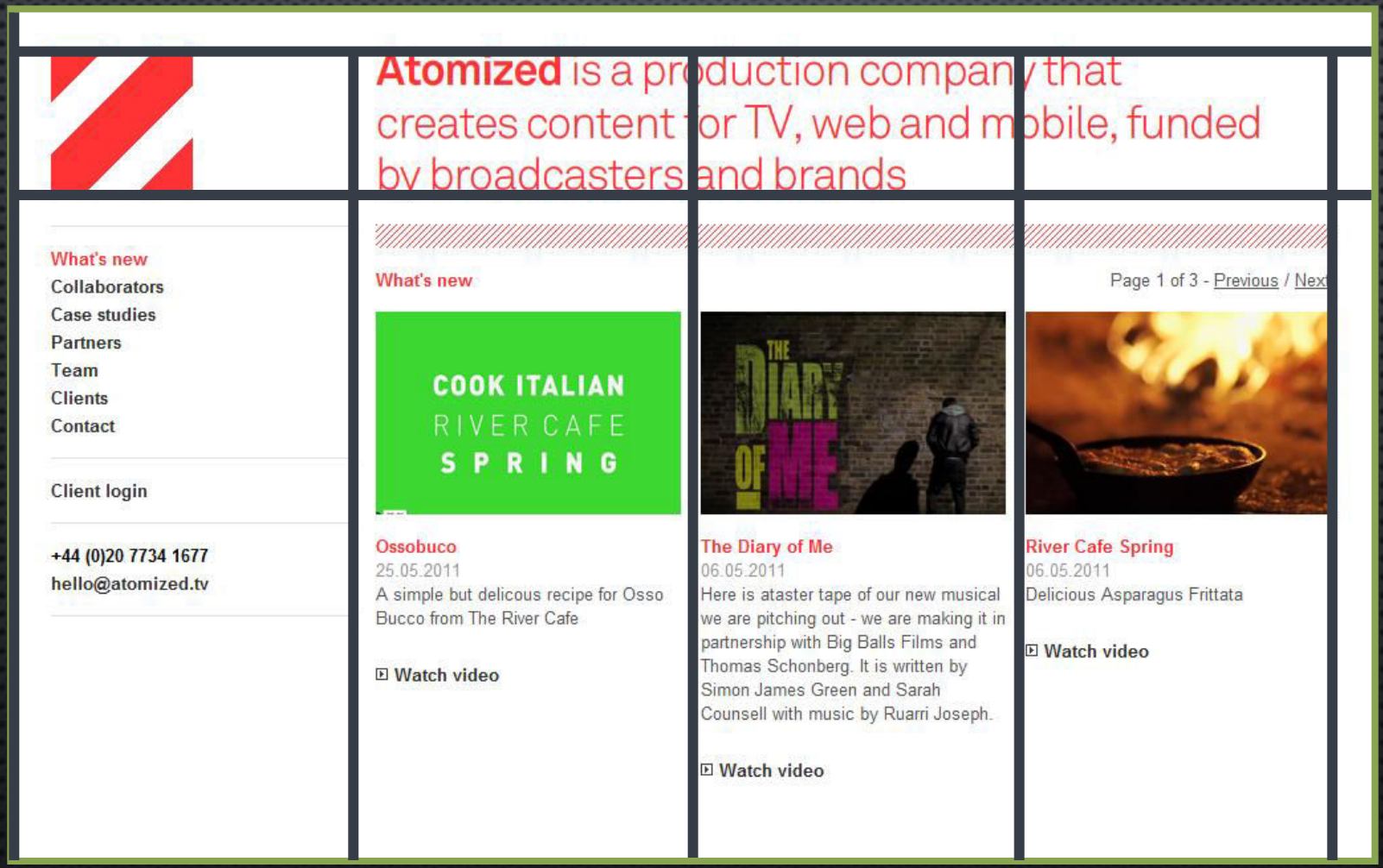
- Important page items should stand out visually
  - Use of size, alignment, colour and typeface
- Examples
  - 'You are here' indicators on navigation bars
  - Page name and company logo being the most visually prominent page elements
  - Navigation options brightly coloured and look like buttons
- If too many elements are emphasised pages can become 'noisy'

ALIGNMENT - 1



http://www.atomized.tv/

ALIGNMENT - 2

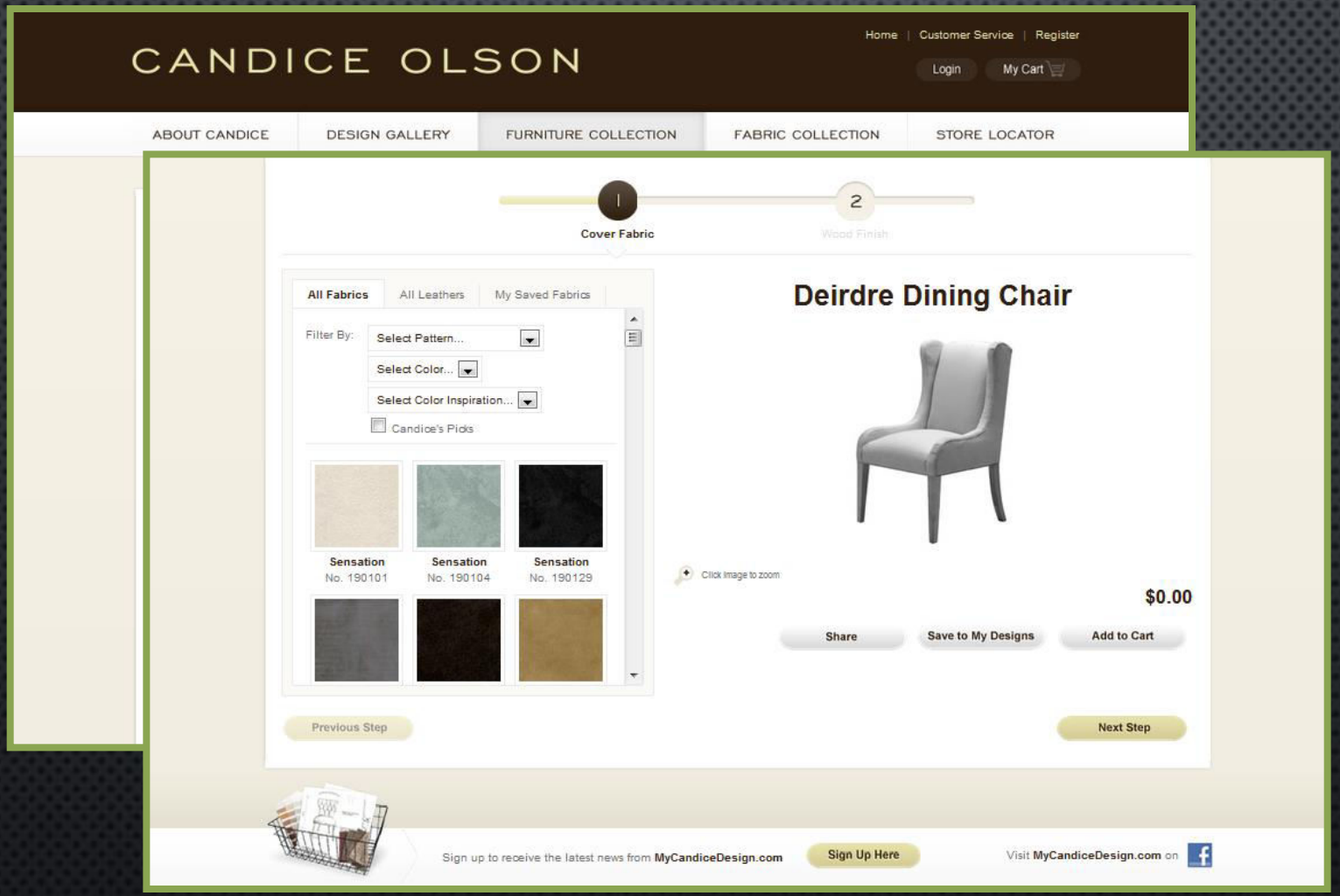


http://www.atomized.tv/

Alignment - 3

- Page elements should be visually connected to each other
  - Provide invisible lines to direct the eyes
  - Easier to scan the page
- Many sites use grids to layout page elements
  - Vertical and horizontal guidelines used to place elements on a page
- CSS grid frameworks
  - http://www.blueprintcss.org/
  - http://960.gs/

CONSISTENCY - 1



http://www.mycandicedesign.com/

Consistency - 2

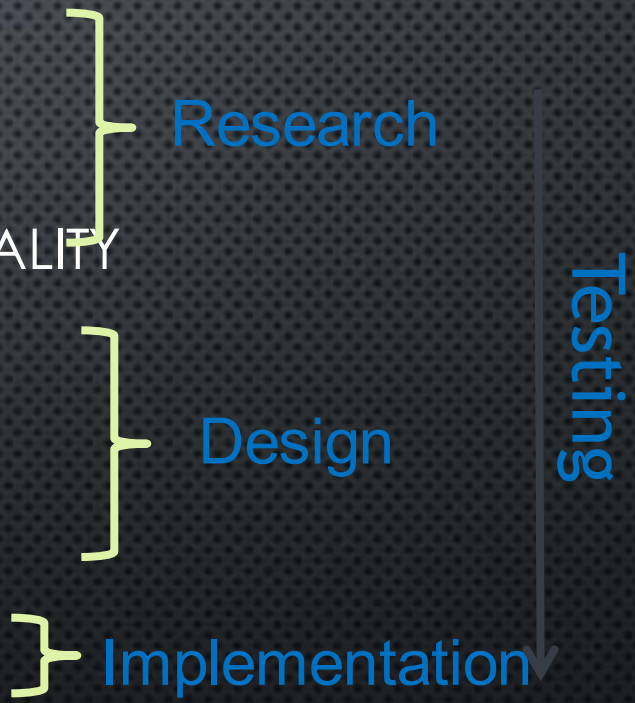
- Design features should be re-used
  - Users recognise and understand familiar elements
- Examples
  - Persistent navigation bars
  - Use the same visual style for all hyperlinks
  - Page layout remaining identical throughout the site

Conventions

- The web has lots of conventions
  - E.g. Company logo in top-left corner
- We should use conventions in page designs
  - Users recognise elements from past experience
- Example conventions
  - Underlined text is a hyperlink
  - Persistent navigation
  - Navigation bars arranged horizontally along the top of a page or vertically on the left-hand edge

Interface design

- Page designs can be developed in a number of ways
  - By hand using pencil and paper
  - An image editing application e.g. GIMP
  - Work directly with HTML and CSS

Web design process

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  - Defining goals
  - Learning about users
  - Defining content and functionality
  - **Designing site structure**
  - **Designing navigation**
  - **Interface design**
  - Writing (X)HTML and CSS