

# The Design & Development of Smart Learning

Pen Lister

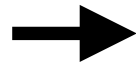
managing  
the project

# The Design & Development of Smart Learning

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## ○ Beginning the project

Clarify the stages of developing a Smart Learning Journey (SLJ), think about feasibility and practical limitations.



Allocate tasks to people, and deadline dates for each stage of the work, plus the final deadline!



Begin work, monitor progress, test iteratively, and sign off stages if possible. Leave plenty of time for problems!



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- **Project aims & planning**
- **Feasibility**
- **Development: scope, technical and tasks**
- **Learning design (aims and learning outcomes)**
- **Content including rich media - originally created and sourced online**
- **Usability (HCI) and Accessibility**
- **Testing - iterative and final**

A schematic of this process is here: [http://files.penworks.net/Color\\_SLJ\\_dev\\_process.svg](http://files.penworks.net/Color_SLJ_dev_process.svg)



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- **Project aims & planning**
- **Feasibility**

*“What you want to achieve and whether it’s possible to achieve it”*

## Project management tools

- **Trello**  
(<https://trello.com/smarterlearning>)
- **Paper and pen**
- **Whiteboards**
- **Excel spreadsheet**





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any technology enhanced

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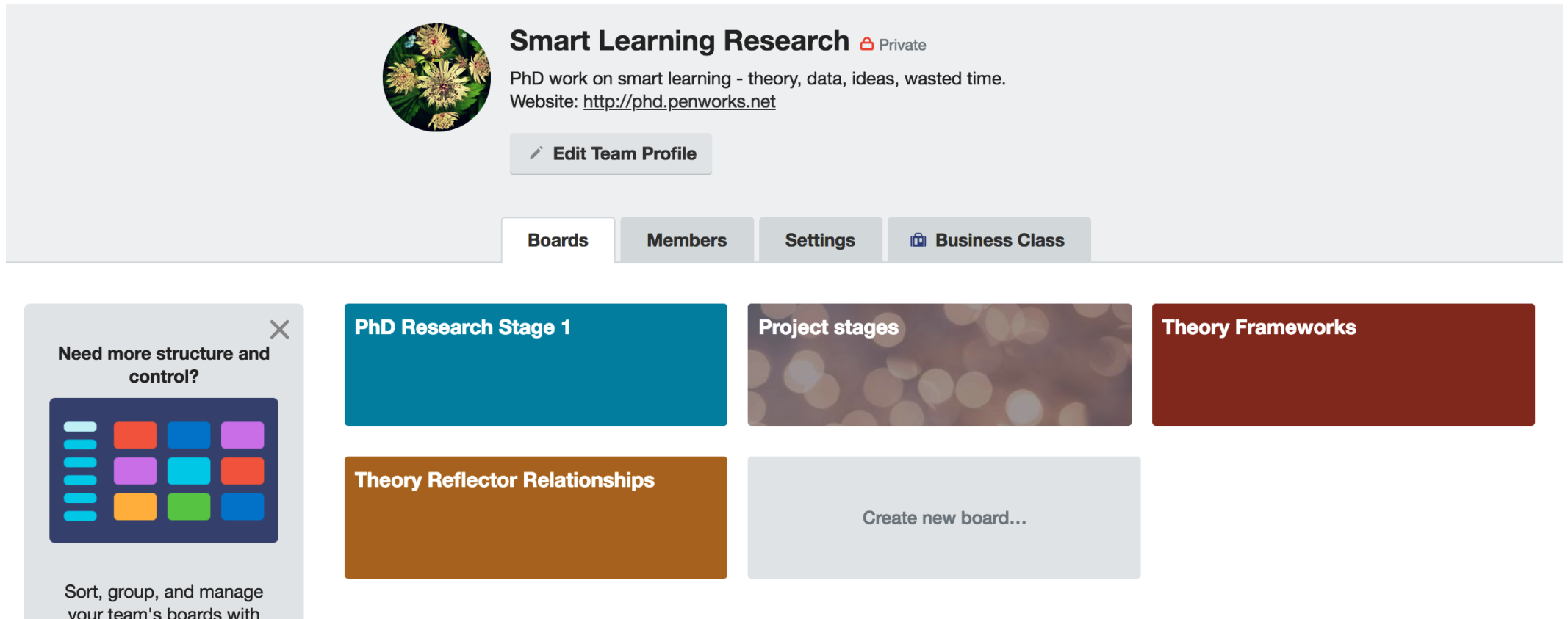
*Scope the project work, the technical work, the content work, the tasks, the people*

- How long will it take
- How complex is it
- What sort of technology
- How much technical work
- What sort of learning
- Who are the learners
- How much original content is needed
- How much content can be sourced

- Who is going to do each of these tasks
- How to nominate skill sets : **Skills Audits**
- How to decide if and when to meet
- How to decide what reasonable deadlines are
- Who gets to check up
- Who is in charge
- How can we sign things off



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The screenshot shows a Trello team profile for "Smart Learning Research", which is marked as "Private". The profile includes a circular team photo of various flowers, a description of the team's focus on smart learning theory and data, and a website link. Below the profile information are tabs for "Boards", "Members", "Settings", and "Business Class". A sidebar on the left contains a "Need more structure and control?" prompt with a grid of colored squares and a "Create new board..." button. The main area displays four boards: "PhD Research Stage 1", "Project stages", "Theory Frameworks", and "Theory Reflector Relationships".

**Smart Learning Research** Private

PhD work on smart learning - theory, data, ideas, wasted time.  
Website: <http://phd.penworks.net>

Edit Team Profile

Boards Members Settings Business Class

Need more structure and control?

Sort, group, and manage your team's boards with

PhD Research Stage 1

Project stages

Theory Frameworks

Theory Reflector Relationships

Create new board...

“Trello” ([trello.com](http://trello.com)) is a project management app. It provides project ‘boards’ with task lists, You can track progress, assign deadline dates and people for each task. You can add text, images etc to each task. You can have team members and alter settings in lots of ways.



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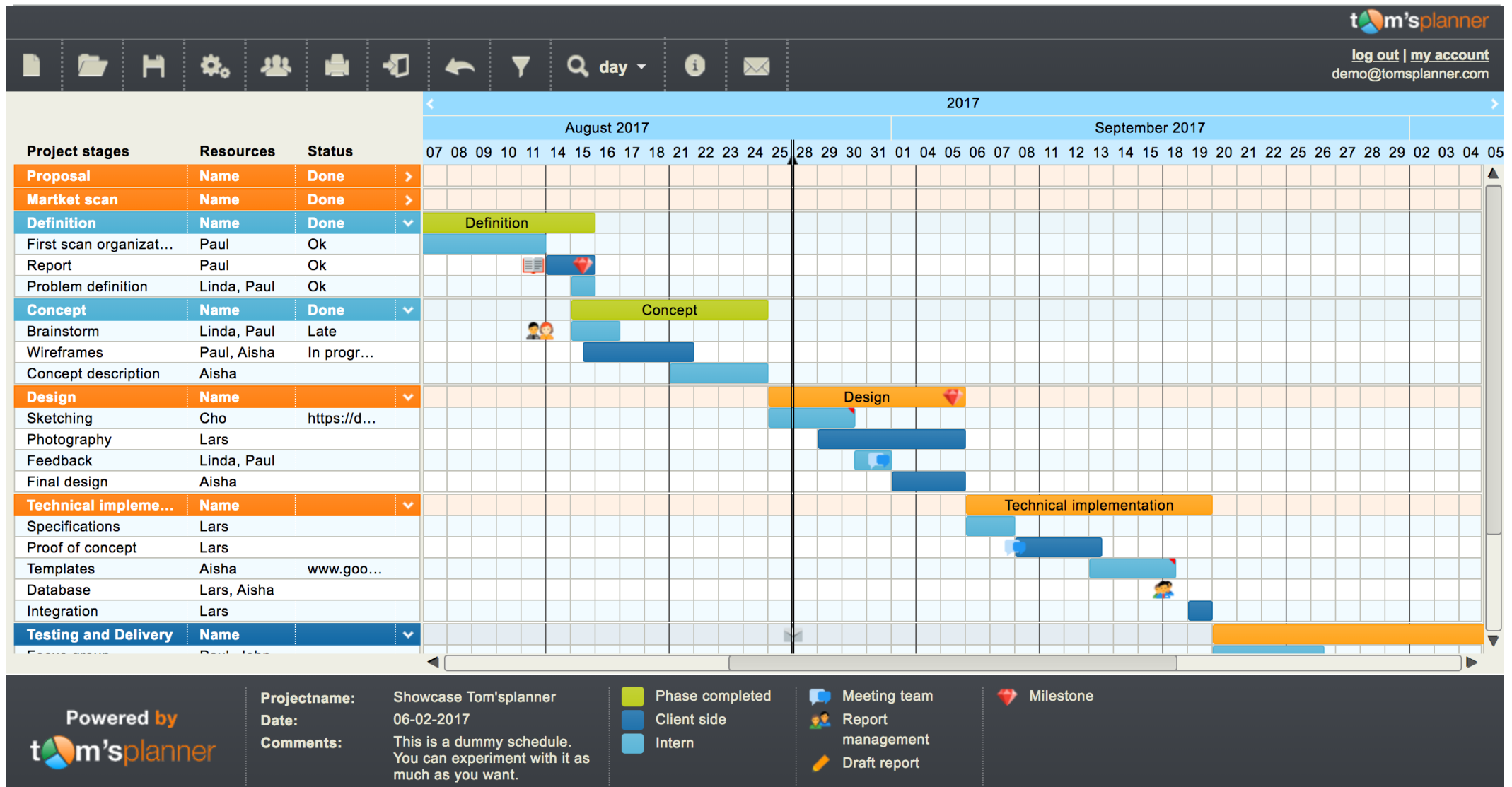
The image displays two Trello boards side-by-side. The left board, titled 'SPRINTS', has a blue header and is organized into three columns: 'To do', 'Doing', and 'Done'. The 'To do' column contains four cards: 'LEARNING', 'Sprint 8a Schematics for legacy content', 'Sprint 12? - documentation for handover', and 'Sprint 9 - add all new channels, addons, new publishing forms ETC to cloned remote'. The 'Doing' column contains three cards: 'Sprint 4a - scripts and RWD template requirements & solutions', 'Sprint 5 - work to improve information, functional and navigation architecture', and 'Sprint 6 PRIORITY WORK TO DO'. The 'Done' column contains two cards: 'Sprint 1 - early groundwork' and 'Sprint 2 - early template work'. The right board, titled 'Design - look & feel, journeys', also has a blue header and is organized into 'To do' and 'Doing' columns. The 'To do' column contains two cards: 'Template journeys' and 'Discuss framework see Jane Hart'. The 'Doing' column contains two cards: 'New templates Ideas' and a card with a hand-drawn diagram of a user journey. Both boards show user avatars, dates, and comment counts for each card.

Examples of Trello boards: *Sprints* and *Design - look & feel, journeys*. Shows 'To Do', 'Doing' and 'Done' columns for tasks with dates, people assigned, as well as content and work being tracked.



Trello has free and paid versions.

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Tom's Planner is a good example of Gantt Chart project management. It's a premium online service, but you could make your own versions of this using Excel.





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- **Development: scope, technical and tasks**
  - Complexity
  - Technology
  - *Resources*
  - How much *technical* work is involved?



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## ○ **Technical aspects, and tasks involved**

○ What sort of technology?

○ How complex is the technology?

○ How much *technical* work is involved?

○ Maps

○ Augmented reality

○ Learning management  
(collaboration and uploading)

○ Web hosting

○ photography

○ icon making

○ images with text

○ blogpost making

○ what else?



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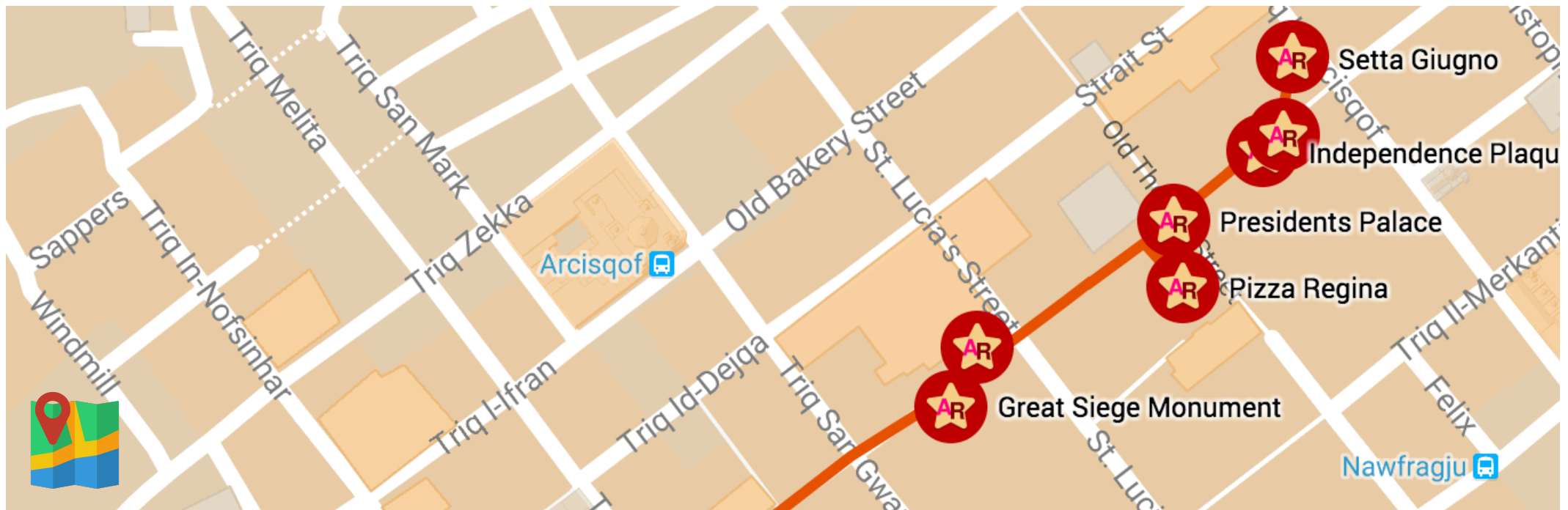
## ○ **Planning locations**

A choice of topic usually indicates quite quickly whether or not you can have ideas about locations that could enhance learning. But it may not always be 'obvious'.

Think: maths, architecture, environment, conservation, food, health, sport, languages, history, arts, culture, biology, chemistry, technology, politics, society, community ... all have possibilities for using locations to make things interesting.



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## ***Scouting locations and scoping topic opportunities in relation to content required***

*The topic choice and types of location to be used influence the kind of content you'd like to use. You may want a larger amount of original content if the level of learning is expert, but if the learning is for younger learners and aimed at a more general level of understanding, you can use more found content.*

*All topics have potential for using locations to enhance learning. Imagination and creative approaches are also required.*



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**You're in the content business**



Finding content



Writing content

Sourcing content





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## ○ **Planning the original content**

- |  |   |
|--|---|
| <ul style="list-style-type: none"><li>○ Writing online content</li><li>○ Sourcing good quality images</li><li>○ Using good quality video hosting</li><li>○ Building good page structure</li><li>○ Naming files clearly</li></ul> | <ul style="list-style-type: none"><li>○ Taking photos</li><li>○ Making video (or audio)</li><li>○ Creating and publishing webpages</li><li>○ <i>Hosting content - website or blog</i></li><li>○ <i>Web domain (website address)</i></li><li>○ <i>Cost</i></li></ul> |
|--|---|



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## ○ **Planning the sourced available content**

- |                                     |                          |
|-------------------------------------|--------------------------|
| ○ Available resources               |                          |
| ○ Excerpts or whole web page links? |                          |
| ○ Available video sources           | ○ <i>Permissions</i>     |
| ○ Available audio sources           | ○ <i>Rights</i>          |
| ○ Available image selections        | ○ <i>Playing it safe</i> |



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- **Learning design (aims, outcomes)**

- What sort of learning
- Who are the learners

- Who is in charge of the learning
- What needs to be achieved
- Any potential limitations
- Evaluation methods (success criteria)



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## ○ **The learning**

- Activities and tasks
- Purpose

- Collaboration
- Participation
- Creativity
- Engagement



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## ○ **People**

- Expert(s) in the knowledge
- Technical support if needed
- Costings people (control of your budget)
- Who is in charge - who can sign things off
- Who will check everything - proof reading, testing
- Who is the best writer
- Who will do the searching and selecting for existing webpages, video, audio
- Who will check compliance? (GDPR etc)

*Skills Audits*





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## TO DO!

28 web pages

16 long text

9 short text

3 image galleries

9 google image selections

3 flickr selections

2 gugenheims

4 original videos

3 audio recordings

4 slidedecks

## photo sessions:

triggers

image content

authors?

other - close up  
edits??

## learning design

how many choices

what kind of  
journey

Game or Tour??

how many  
hotspots?

when is final deadline?

is there time for  
enough testing?

meet with expert on  
topic

compliance???

plan the tasks with  
the tutor

check we can use  
school websites

audioboom account

vimeo account

Happy project  
planning 😊



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## Background

- **Free online project management software** <https://zapier.com/blog/free-project-management-software/>
- **What is a 'kanban' board?** <https://zapier.com/learn/project-management/kanban-board/>
- **The Critical Path** <https://www.thebalance.com/critical-path-description-and-overview-2276120>
- **What is Augmented Reality?** <https://www.lifewire.com/augmented-reality-ar-definition-4155104>
- **7 reasons you need project plan (graphic)** <https://thedigitalprojectmanager.com/project-plan-guide/#7-reasons-you-need-project-plan>

