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Assignment 1 - Innovation and Research
Changemakers: Creativity and Value Creation

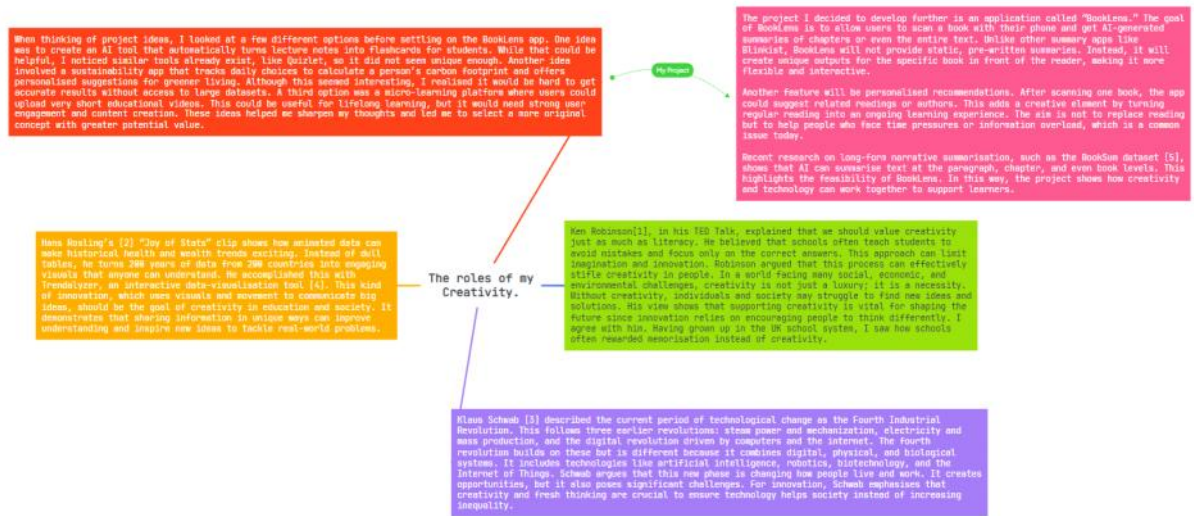
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Course: Software and Data

Task 1: Ideation & Mind Map

Mind Map figure 1



Task 2: Aim & Objectives and Research

Q1:

The goal of my project is to develop the concept of "BookLens," a mobile app that enables users to scan a book and receive concise AI-generated summaries, along with recommendations for similar titles. The idea is to make learning quicker and easier, especially for people who don't always have the time to sit and read for long periods.

This idea relates to creativity and innovation because it takes something traditional, like reading, and utilises technology to enhance its usefulness today. It also connects to value creation because the app could genuinely help students, professionals, and anyone who wants to read more but finds it challenging due to time constraints. As Schwab [6] discusses in his book about the Fourth Industrial Revolution, new technology is already transforming how we live and learn, and BookLens could be a part of that.

To reach this aim, I set several objectives:

- Read up on creativity, innovation and value, especially in digital learning.
- Look at other book summary apps to see what they do well and what could be improved.
- Review what AI could be used for making chapter summaries.
- Conduct my market research, including surveys and questionnaires, to understand what people want from BookLens.
- Work out what kind of value the app could give, e.g. helping people save time or making studying easier.
- Revisit how I came up with the idea and see how it's changed and developed.

Q2:

Pragmatism is a research philosophy centred on solving problems in practical ways instead of following a strict method. The video from Unit 1, Topic 2, explains that pragmatism is about using whatever approach works best for the question being asked. This sets it apart from positivism, which depends only on measurable facts and data, and interpretivism, which focuses more on personal meanings and perspectives. Rather than picking one side, pragmatism combines elements of both. For instance, a pragmatist researcher might gather survey data to determine how many people are likely to use an app. They could also conduct interviews to understand why people would or would not use it. The video points out that pragmatism views knowledge as applicable only when it can be applied in practice. This makes it an excellent choice for projects like mine, which strive to turn creative ideas into genuine innovations. For BookLens, I could use both numbers and personal feedback to assess how valuable the app might be to users. By doing this, pragmatism ensures that the research is not just theoretical but practical in real life [7].

Q3:

To make my research more effective, I will continue to refine my keywords and search combinations. Starting broad can help me see the full range of work in AI summarisation and educational technology, but narrowing down with filters will make the results more relevant. For example, I can search "AI summarisation" along with "reading engagement" or "personalised recommendations" to find studies that connect more closely with BookLens's features. Using quotation marks for exact phrases and the minus sign to exclude unrelated topics will also help filter out irrelevant results.

Another technique I plan to use is citation tracking. When I find a useful paper, I will check both the works it cites and the more recent papers that have cited it. This forward and backwards searching can uncover important research that might not appear in my initial results.

I will also use research communities and open repositories, such as ResearchGate, where authors sometimes share preprints or answer follow-up questions. These interactions can provide extra insights into the reasoning behind a study or the challenges the researchers faces. [8]

I will use researched communities such as ResearchGate, where authors sometimes share preprints or respond to follow up questions. These interactions can give valuable insights into the reasoning behind a study and the challenges the researchers faced. This relates to Rumsfeld's idea in the video about "unknown unknowns," since these searches and conversations often reveal aspects I didn't know I was missing [1]. Additionally, using tools like Google Scholar will be very helpful. It enables me to track citations and refine my search using relevant keywords and filters, ensuring the results remain relevant [9].

Task 3 Research Strategies

Q1:

For my BookLens project, I need to ensure my research is solid. The video Finding a Needle in a Haystack highlights how easy it is to get lost in too much data or focus on the wrong issues. That is a risk in my project as well, so I must be clear about what I am looking for.

To maintain validity, I will write questions that tie directly to my aim. My goal is to find out if BookLens can save people time and help them engage with reading in a new way. I will first test the survey on a small group to identify any confusing parts and fix them before distributing it more widely. A few short interviews will also help confirm whether the answers align with what people mean. As Saunders et al. explain, piloting tools and connecting them to the research aim is a key way to improve validity [11].

To ensure reliability, I will keep everything consistent for everyone. This means using the exact wording, the same order of questions, and the same method for sending out the survey. If I need to code open-ended answers, I will maintain a simple set of notes so I do not alter my interpretation midway through.

To make the findings more generalizable, I will not only survey one type of person. I will gather responses from students, professionals, and casual readers to see if the results are similar across different groups. I cannot represent every reader, but this approach helps avoid being too narrow.

Finally, ethics are crucial. I will inform participants about the survey's purpose, assure them it is anonymous, and let them know they can opt out if they wish. I will also keep the data secure and use it only for this project. Since the app idea involves AI summaries, I also need to consider copyright issues. I will not use or store full book texts, just feedback from participants.

By addressing all these aspects, I can avoid wasting time on irrelevant data and enhance the trustworthiness of my research [10][11].

Q2:

For my BookLens project, I will use a combination of methods that include an online survey and content analysis. The survey will help me gather structured feedback from various readers, including students, professionals, and casual users, in an organised way. Content analysis will enable me to look at existing book summary apps and online reviews to identify common themes, strengths, and weaknesses. Using both methods will give a more balanced view of user needs and current market gaps.

To ensure the survey works well, I have created a pilot version (see Appendix A). The survey draft includes five questions about reading habits, the use of summary apps, and interest in AI summaries. I am not collecting answers yet; I want to check if the questions are easy to understand and make sense in their current order. If someone points out, "this part is confusing", or "maybe rephrase this," I can use that feedback to improve the survey before I start using it formally.

Planning this way reflects good research practice. The National Centre for Social Research explains that piloting surveys is important for identifying unclear questions and boosting reliability before broader data collection [12]. Similarly, the Pew Research Centre points out the benefits of combining surveys with content analysis. This approach helps researchers understand not just what people say, but also the broader context and patterns in existing material [11].

To compare existing book summary apps, I created a content analysis framework (see Appendix B). This framework examines key areas like ease of use, quality of summaries, integration of AI features, and overall value for users. I also included user feedback and potential gaps in innovation to show where current apps succeed and where they fail. By organising my review this way, I identified clear opportunities for BookLens, such as adding a scanning function and providing more personalised summaries. This structured approach strengthens the reliability of my findings and ensures the analysis goes deeper than surface-level observations.

Q3:

When carrying out research, it helps to look at data in more than one way. Quantitative and qualitative approaches each offer something different, so using both can make the findings stronger.

Quantitative analysis is mainly about numbers. It can mean working out how many people chose a certain option, calculating an average score, or looking at how often something comes up in the results.

For instance, if I ran a survey on book summary apps, I could count how many people use them daily compared to weekly and present the results as a percentage. More advanced methods, such as correlation, can reveal whether two things are related; for example, whether people who read more summaries also report learning faster.

Qualitative analysis emphasises meaning and explanation instead of numbers. It often involves reviewing words, ideas, or experiences and grouping them into common themes. For example, if users frequently mention that summaries are “too short” or “not detailed enough,” that would indicate a theme.

Another way to analyse data is through content analysis, where feedback and reviews are read closely to pick out repeated themes, whether that is positive comments or common criticisms.

Each method has its advantages, but using them together gives a fuller understanding. The numbers can show how widespread something is, while the words reveal why people feel that way. As noted in the Open University video It is All in the Numbers (2015), balancing these methods makes research more reliable and valuable.[12]

For my BookLens project, I would use quantitative analysis to assess how many people are interested in AI-generated summaries and qualitative analysis to find out what users truly want from this feature. This blend would reveal both the level of interest and the underlying reasons.

An Example of how both quantitative or qualitative analysis could be applied to bookLens is included in the Appendix C

Appendices

Appendix A - BookLens Survey

The screenshot shows a survey titled "BookLens". It contains five questions:

1. How many books do you usually read in a month? *
Radio button options: 0, 1-2, 3-5, 6+.
2. Have you ever used a summary app (e.g., Blinkist)? *
Radio button options: Yes, No.
3. How useful would you find an app that scans a book and provides a short AI-made summary? 1 (Not useful at all) 5 (Very useful) *
A horizontal row of five input boxes labeled 1, 2, 3, 4, and 5.
4. What would be the main benefit for you? (select one)
Radio button options: Saving Time, Learning Faster, Discovering new Books, Other (with a text input field).
5. Do you have any concerns about AI-generated summaries *
A text input field with the placeholder "Enter your answer".

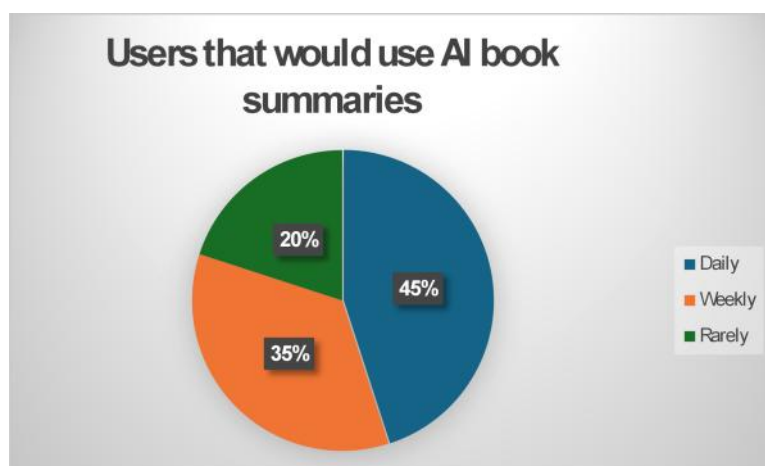
Appendix B - Content Analysis Framework Table

Ease of Use	What to look for	Example Notes/What to improve
Summary of Quality	Is the app simple to navigate? Are summaries easy to access?	Some apps require too many steps before you get to content. Content on app can sometimes feel cluttered.
AI Features	Does the app use AI? If yes, how? If no, what could be added?	Reviews are saying summaries are too short.
Value for Users	How does the app save time, improve learning, or engage users?	Good for commuters, but lacks depth.
User Feedback	What do online reviews praise or criticise?	Headway reviews mentions features on apps are too expensive.
Innovation Gaps	What could be improved or added compared to competitors?	No scanning feature, no personalised summaries.

Appendix C - Example of Quantitative and Qualitative Analysis for BookLens

Method	Example of Data Collected	Type of Analysis	What it shows
Quantitative	120 Survey responses on how often people are using or looking for AI summaries.	Frequency counts ,percentages, correlation.	A % of users likely to use BookLens daily. Subject to frequent readers.
Qualitative	Open ended survey comments about what users want in a summary. Giving the readers the options on if they want it to be short or helpful.	Thematic analysis, content analysis. Looking at key grouping ideas.	This will show main themes, such as a need for detail, clarity, or personalised recommendations.

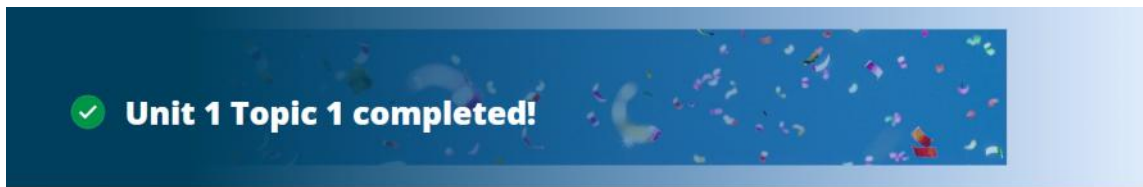
Appendix D - Example of visualisation mock pie chart



Appendix E - Ethical considerations

If this project is conducted with real participants and real data, we will follow ethical standards. All participants will be informed about the purpose of this study and how we will use their data before they take part. No personal data will be used for anything outside the study. Participants will remain anonymous and have the right to withdraw at any time.

Appendix F - Online Learning Unit 1 Topic 1 Completed



You should now:

- Recognise the evolutionary positive impact, importance and benefit of creativity and innovation in society.
- Identify concepts used to describe the progress of technology and innovation.
- Think of yourself as someone capable of being creative (if you don't already)

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[Exit](#) ✕

If you have taken notes using the in-built notebook, you can now export them.

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Here are listed the references that are used in this topic.

[References](#) 📖

Appendix G - Online Learning Unit 1 Topic 2 Completed

A blue banner with a green checkmark icon and the text "Unit 1 Topic 2 completed!". The background of the banner features a blue sky with falling confetti and a small red boat on the right.

You should now:

- recognise the link between creativity and feelings of wellbeing and understand how to strengthen that link in your own life;
- define your research philosophy using the new terms Ontology, Epistemology and Axiology and understand how these philosophies can impact your investigation;
- define your research philosophy as one of five constructs.

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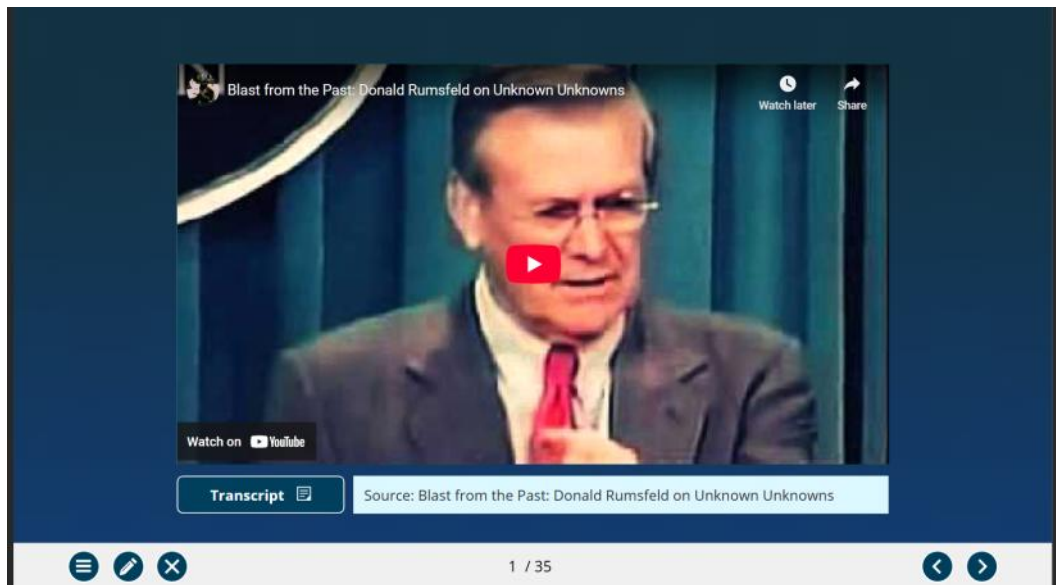
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Appendix H - Online Learning Unit 1 Topic 3 Completed



Appendix I - Unit 4 Topic 1 online learning completed

 **Unit 4 Topic 1 completed!**

You should now:

- Be able to imply a numerical precision to arguments in a casual way that brings a lack of precision to our work.
- Be able to analyse data using different examples of graphs and charts and present data using a variety of methods.
- Have a deeper understanding of creating charts that communicate in the best way possible.

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[References](#)

References

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