Google Cloud Student Revitalization Business Case Report

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Executive Summary

Description of the Problem

- Google's Cloud for Student's Program has experienced an all-time high of new accounts becoming inactive. The root cause of this is the difficulty new students face finding information.

Project's MOV and its Connection to Google's Goal and Strategy

- Google's goal is to make information accessible to anyone who is seeking it.
- Projects MOV is to reduce our rate of inactive Student Google Cloud accounts after the first week. This connects with Google goal and strategy of making information accessible to anyone who is seeking it as the project would deal with by dealing with the root cause of accounts becoming inactive, resulting in students finding the information they need.

Brief Description of Three Project Alternatives and Project Recommendation

- **Alternative #1:** Redesign Google Cloud for Students to change its interface changes based on the user's familiarity with the cloud via "modes".
- **Alternative #2:** Redesign Google Cloud for Students to a sandbox environment.
- **Alternative #3:** Redesign Google Cloud for Students to focus on "pathways"/ learning modules.
- **Recommendation:** We propose moving forward with redesigning Google Cloud for Students via "modes." It deals with the root cause of students having difficulty finding the info they need and is the most cost-effective project.

Introduction

Background

- Google Cloud is a cloud computing service that provides services like data analytics, computing, data storage and machine learning along with some management tools. (Google)
- Google Cloud for Students is a program that provides students with resources relating to Google Cloud. The goal of the program is to have students familiarize themselves with the Google Cloud environment with the hopes of students either becoming a Google Cloud advocate or a Subject Matter Expert to maintain and grow Google Cloud's enterprise customers.

Current Situation

Google Cloud's internal analytics teams recently discovered that 90% of the 75,000 new Google Student accounts become inactive in the first week. This is a significant increase as previously it was only 50%. Upon further analysis, the root cause was the difficulty students face trying to find any information within Google Cloud.

This drop-off will affect Google's relationship with organizations that use Google Cloud as their definitive cloud solution as the 90% drop-off rate would mean a reduction in student users becoming advocates for Google Cloud and a reduction of Subject Matter Experts (SME). This could lead to our customers switching to our competitors in the future with a lack of Google Cloud advocates and SMEs to support a Google Cloud solution within their organization. This is especially a concern when upper management is pushing for projects that are more cost effective as it limits our options to tackle this problem by limiting the usage of our resources.

SWOT Analysis

Strength	**Weaknesses**
• Brand recognition • Variety of cloud services (Big Query, Cloud SQL, Compute Engine) that can interest students. • Student/new learner focus program **with** dedicated resources. • Dedicated resources relating to Google Cloud	• Resources for new student users are difficult to find. • Pressure from upper management to reduce spending on new projects
Opportunities	**Threats**
• Reduce new student accounts from becoming inactive. • Opportunity to redesign/revamp Google Cloud for Student to be more user friendly. • Potential chance to increase user growth with changes	• Competitors (AWS, Azure, Oracle) offer similar student programs. • Potential reduction of Product advocates and SMEs for Google Cloud • 90% drop off rate for new student accounts

Projects MOV + Connection to Google's Goal and Strategy

The Project will be successful if the rate of the new Student Google Cloud accounts becoming inactive drops from its current 90% to a rate of 50% or lower. The Project's MOV ties in with Google's goal and strategy of making information accessible by dealing with the root cause of the drop-off which is the difficulty of finding information that students face after joining Google's Student Cloud program.

Objectives

- Outline three projects that can be used to deal with the inactive user issue that Google Cloud for Students is facing.
- Recommend redesigning Google Cloud with a focus on "modes" over two alternative projects.
- Show how the "modes" project provides superior benefits at a lower cost.

Project Alternatives

Alternative #1: Implementing User "Modes" on the Google Cloud Website

Google Cloud for Students is redesigned with different types of user "modes". After creating an account, students would be given the option to choose between three separate user modes (Beginner, Intermediate, and Advanced). Each mode would customize the user interface (UI) depending on the user's knowledge level. This project supports Google's MOV as it makes finding information on Google Cloud easier for students with a tailored interface depending on their knowledge level.

The Total Cost of Ownership (TCO): $*690,000*.

- Direct/Upfront Costs: ***$600,000***
    - Website Development Costs: ***$300,000***
        - Developing different user modes for Google Cloud would require a lot of backend development to integrate multiple UI options. This would require the skill of many software developers, time, and resources to complete this task.
    - UI Design Costs: ***$200,000***
        - Redesigning the UI for each user mode, such as simplifying and making it user-friendly will require significant UI design resources. Designers will need to create prototypes for each user mode and take into consideration the needs of users.
    - Tutorial Creation Costs: ***$100,000***
        - Writers will need to produce tutorials and guides specifically designed for each user mode. This includes step by step tutorials, descriptions of materials, and video demonstrations to help users interact with Google Cloud.
- Ongoing Costs: ***$50,000/year***
    - Maintenance Costs: $50,000
        - Includes regular updates to content and fixing bugs as the website itself evolves.

- Indirect Costs: ***$40,000***
    - Testing Costs: $40,000
        - Before launching the different user modes, the new interface and content must be tested. This consists of the testing of usability to ensure that all the new features are functioning without errors. Any bugs found from these tests will be fixed to refine the final product.

The Total Benefits of Ownership (TBO): *$1,200,000/year*.

- Tangible Benefits: ***$937,500/year***
    - Increased Student Engagement
        - Students who can easily access and understand how to use Google Cloud through the different user modes are more likely to continue to use Google Cloud in the future.
        - Assuming the implementation of the new user modes results in a 25% increase in active users over the first year with each active user spending about $50/year. If there are 75,000 new users each year, 18,750 of them will be active users, leading to a total value of $937,500/year.
- Intangible Benefits: ***$262,500/year***
    - Increased enhanced user experience and satisfaction
        - A customizable interface and in-depth tutorials ensure that users are not overwhelmed, leading to a better experience. Students who are satisfied by the enhanced user experience are more likely to recommend Google Cloud over other cloud computing companies.

- If the recommendations of Google Cloud users increase active student account creations by 7%. Given that there are 75,000 account creations a year, 7% would lead to an additional 5,250 accounts created yearly. If each new account contributes an average of $50/year, the total value derived would be $262,500/year.

Return On Investment: (1,200,000 – 690,000) / 690,000 = ***0.739***

Net Present Value (NPV) Table

Project Choice 1	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
Benefits	$0	$1,200,000	$1,200,000	$1,200,000	$1,200,000	$1,200,000	$6,000,000
Costs	$690,000	$50,000	$50,000	$50,000	$50,000	$50,000	$940,000
Cash flow	($690,000)	$1,150,000	$1,150,000	$1,150,000	$1,150,000	$1,150,000	$5,060,000
NPV	**4,396,396**						

Alternatives #2: Google's Cloud for Student Labs

Google Cloud for Students is redesigned to be a dedicated student lab. The lab environment would allow students to explore Google Cloud services in a sandbox environment where students will be given guided exercises and interactive tutorials to learn about Google Cloud. This project aligns with Google's MOV by making Google Cloud accessible to students through the student lab environment.

The Total Cost of Ownership (TCO): *$960,000.*

- Direct/Up-Front Costs: ***$850,000***
    - Development Costs: ***$500,000***
        - Developing a sandbox environment would require many backend developers. This cost includes the development of the sandbox environment itself and its

integration into the website, making sure the labs are isolated from the main account.

    - UI Design Costs: ***$200,000***
        - This cost includes the design of a user interface that intuitively guides students through lab exercises.
    - Tutorial Creation Costs: ***$150,000***
        - Creating the content covered in tutorials and labs for students would require various writers.

- Ongoing Costs: ***$70,000***
    - Maintenance Costs: ***$70,000***
        - This covers any costs related to the updated to content as the Google Cloud website changes to keep labs current.
- Indirect Costs: ***$40,000***
    - Testing Costs: $40,000
        - This cost includes the many tests that need to be conducted to ensure that the lab environment is running smoothly.

The Total Benefits of Ownership (TBO): *$1,500,000*.

- Tangible Benefits: ***$1,125,000/year***
    - Increased Active Users
        - By providing an engaging and structured environment for students to learn Google Cloud, it is estimated that active users will increase by 30%. Given that there are 75,000 new users each year, 22,500 would be considered active users. If

each user spends an average of $50/year, the value of this benefit will total $1,125,000.

- Intangible Benefits: ***$375,000/year***
    - Improved User Satisfaction
        - Students who gain hands-on experience in a risk-free environment are more likely to feel confident in using Google Cloud and continue to use it. This can lead to users recommending Google Cloud because of its lab environment, leading to future account creations.
        - If the recommendations of Google Cloud users increase active student account creations by 10%. Given that there are 75,000 account creations a year, 10% would lead to an additional 7,500 accounts created annually. If each new account contributes an average of $50/year, the total value gained would be $375,000/year.

Return On Investment: (1,500,000 – 960,000) / 960,000 = ***0.562***

Net Present Value (NPV) Table

Project Choice 2	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
Benefits	$0	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$7,500,000
Costs	$960,000	$70,000	$70,000	$70,000	$70,000	$70,000	$1,310,000
Cash flow	($960,000)	$1,430,000	$1,430,000	$1,430,000	$1,430,000	$1,430,000	$6,190,000
NPV	**$5,368,034**						

Alternatives #3: Google's Cloud Student's Program Pathways

Google Cloud for Students is redesigned to focus on “pathways.” After creating their account, Students can choose a “pathway” or tailored course on what they want to learn within Google Cloud. Each pathway would contain a series of curated modules, labs and projects designed to help students build their knowledge on that resource. This project aligns with Google’s MOV as the pathways streamline information about each of Google Cloud’s services to new students.

The Total Cost of Ownership (TCO): *$1,725,000*.

- Direct/Up-Front Costs: ***$1,500,000***
    - Development Costs: ***$800,000***
        - Having various pathways, this alternative requires each pathway to be coded to provide customized modules, tutorials and tracking of progress. Developing structured pathways and integrating them with the website would require significant development resources.
    - UI Design Costs: ***$400,000***
        - The UI needs to be redesigned to present material only relevant to the pathway the user selected. This would require varying designs for each pathway.
    - Courses, Labs, Tutorial Creation Costs: ***$300,0000***
        - Material related to each pathway must be customized, involving the use of many writers.
- Ongoing Costs: ***$150,000***
    - Maintenance Costs: $150,000
        - Over time, the material relating to the pathways will change, meaning that updates are necessary. This cost covers updating content.
- Indirect Costs: ***$75,000***

- Testing Costs: $75,000
    - This covers any testing needed to ensure smooth usability, performance, and functionality.

The Total Benefits of Ownership (TBO): *$1,799,500*.

- Tangible Costs: ***$1,312,500***
    - Increased Active Users
        - The learning pathways provide a clear and structured path, guiding students through the navigation of Google Cloud, encouraging them to continue to use the platform. If the implementation of this feature increases active usage of accounts by 35% among the 75,000 new student accounts and if each user brings spends around $50/year, the total value is $1,312,500.
- Intangible Costs: ***$487,500***
    - Increased Student Recommendations
        - Students who have positive experiences using Google Cloud because of the learning pathways are more likely to recommend the platform to others. If these recommendations increase active users by 13%, 9,750 users would join Google Cloud leading to a total value of $487,500.

Return On Investment: (1,799,500 – 1,725,000) / 1,725,000 = ***0.043***

Net Present Value (NPV) Table

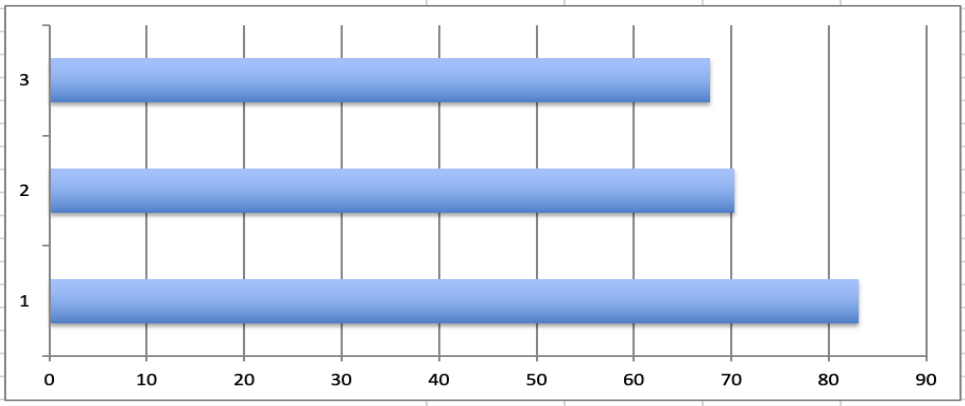
Project Choice 3	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
Benefits	$0	$1,799,500	$1,799,500	$1,799,500	$1,799,500	$1,799,500	$8,997,500
Costs	$1,725,000	100,000	100,000	100,000	100,000	100,000	2,225,000
Cash flow	($1,725,000)	$1,699,500	$1,699,500	$1,699,500	$1,699,500	$1,699,500	$6,772,500
NPV	**$ 5,814,010**						

Project Alternatives Analysis

Criteria to analyze.

- **Return on investment (ROI):** assesses how much financial gain the company will receive compared to the amount spent on the project. Knowing the ROI makes it financially easier to approve a project in a cost-effective environment.
- **Alignment with Organizational aim: assesses** how well the project aligns with Google's basic objective of accessibility and functionality. The benefits of this solution include higher user involvement and happiness, while the expenditure includes development and UI design.
- **Cost-Benefit Ratio:** Assesses the tangible and non-tangible benefits. This Criterion allows for a more comprehensive study than ROI because it considers not just financial advantages but also intangible benefits such as increased user experience and commitment to the company.
- **User Retention/Satisfaction**: Measures how likely the user is going to stay on the platform. This criterion addresses the project's ability to keep users engaged over time, which is critical to the platform's long-term success and reducing new students' accounts becoming inactive.
- **User Experience (UX) Improvement**: An improved UX leads to higher retention rates as users would not be confused or overwhelmed. This criterion addresses students' difficulty finding information on Google Cloud due to the User Interface.

Criteria	Weight	Project 1	Project 2	Project 3
Return on Investment (ROI)	15%	75	70	65
Allignment with Organisational Aim	20%	80	60	65
Cost-Benefit Ratio	25%	95	77	80
User Retention/Satisfaction	20%	75	63	55
User Experience (UX) Improvement	20%	85	80	70
Weighted Project Scores	**100%**	**83**	**70.35**	**67.75**



Proposed Recommendation

After a thorough examination of all the proposed projects, we believe that redesigning Google Cloud for Students based on “modes” would be the best project to move forward with.

- From a qualitative aspect, the “modes” project immediately improves user experience (UX) by offering three separate user modes (Beginner, Intermediate, and Advanced) that tailor the interface to each user's ability level.
- This ensures that consumers can use the platform without feeling overwhelmed by complexity. Google's purpose is to make information accessible to those who seek it, and this project supports that goal by catering to students of varying degrees of technical knowledge.
- From Quantitative analysis, the expected ROI of 0.739 indicates a significant financial gain for Google. The $690,000 TCO is also offset significantly by the estimated TBO of $1.2 million per year, indicating a significant return. The project also has the lowest TCO, aligning with upper management’s move to reduce the cost of new projects

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