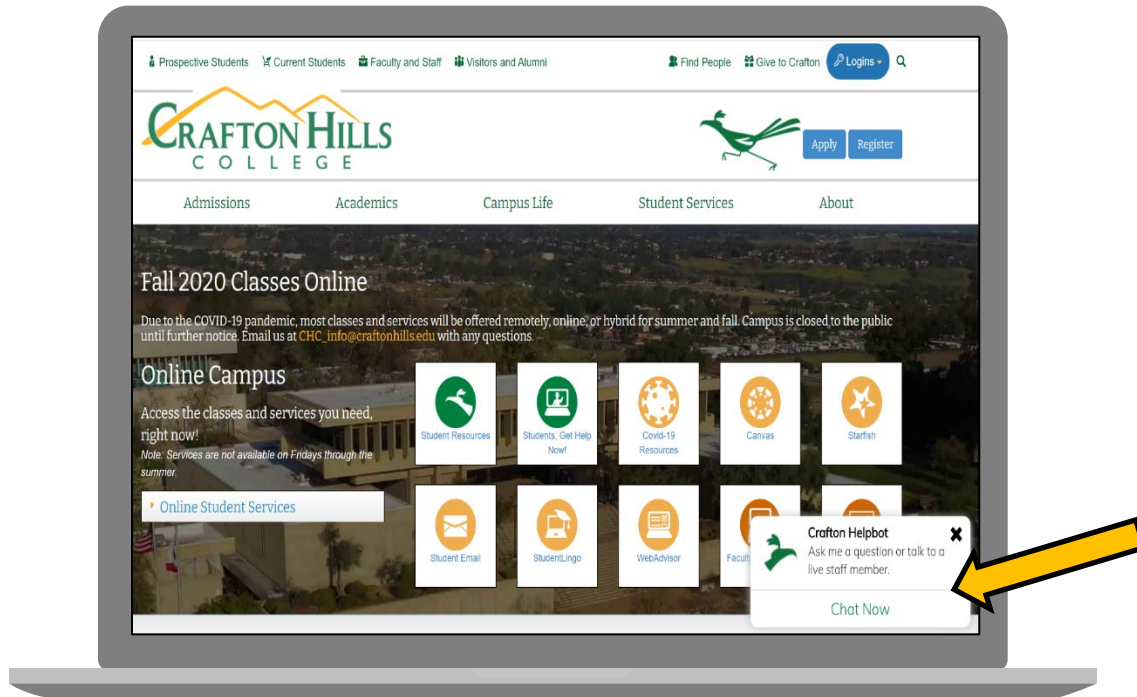




This report includes results stemming from an interaction study relating to Crafton’s Helpbot, deployed during the Summer 2020 term. In response to the coronavirus pandemic, Crafton made a transition to a mostly online campus environment. The Office of Institutional Effectiveness, Research & Planning (OIERP) in collaboration with Crafton’s website developer conducted a study, to provide suggestions on improvements stemming from questions posed by individuals visiting Crafton’s website. The aim was to identify topics individuals asked about and improve access to information requested. Interactions with the Helpbot taking place between June 22, 2020 through July 21, 2020 were examined; therefore, the findings reported herein reflect that timeframe. Data logs on interactions consisted of an automatically assigned client number for each unique session, time stamp, and messages exchanged during interactions (i.e., initial bot message through the end of the interaction).

Given the need for the research office to provide findings as quickly as possible, researchers randomly sampled 300 out of 1,726 available conversation threads (17%). All selected conversation threads were ones that included questions that the Helpbot was unable to adequately respond to, as evidenced by the Helpbot response, “I do not understand your question”. A total of 300 threads were analyzed, of which there were 298 unique client interactions. This means that 298 of these client interactions were unique sessions, with one individual. The remaining two questions sampled were follow-up questions from two sessions. This finding suggests that at least 17% of individuals experienced an initial non-productive interaction with the Helpbot during this timeframe. The Helpbot response, “I do not understand” is not an appropriate communication strategy and work surrounding improvements on increasing efficiency will need to be an ongoing process of review and refinement.

Graphic 1 - Demonstration of the Crafton Helpbot on campus home webpage (taken on 8/8/20).



Overall Findings

The 300 questions that were included in the sample were categorized into one of six areas, to help organize improvement efforts:

- 1) Administrative Services (“Have a question about visiting campus Bursar office”)
- 2) Instruction (“Hi is this college regionally accredited?”)
- 3) Student Services (“I can’t afford college, can you please help me?”)
- 4) District Help Desk (“I can not get in to webadvisor”)
- 5) Miscellaneous (“Can I speak to a live staff member?”)
- 6) Not Applicable (“No one is online”)

The “miscellaneous” category was used for questions with broader contexts of help needed that could not be necessarily directed to a particular department. As such, these questions may be answered through the Student Resources page, Online Answer Center via Zoom, Human Resources, or others. The “not applicable” category was used for instances where there was no question asked or questions were nonsensical. A limitation to grouping any questions into categories is that is that different researchers may group them differently.

Table 1 demonstrates the majority (64%) of questions in this sample pertained to Student Services, followed by miscellaneous questions (24%).

Table 1. Questions categorized

Areas	#	%
Student Services	193	64.3
Miscellaneous	71	23.7
District Help Desk	15	5.0
Instruction	10	3.3
Administrative Services	7	2.3
N/A	4	1.3
Total	300	100.0

It is important to highlight that the sampled conversation threads were not modified in any way and **only** consisted of questions that the Helpbot was not able to understand. In addition to grouping the questions into categories, researchers also identified topics or keywords relating to the questions asked. The intent was to organize questions by area and topic/keywords to help focus areas of improvement. For example, under Student Services, Admissions and Records had various questions relating to the topic/keyword “transcript”, improvements focused on this will help individuals find information needed when asking about transcripts. Please note, the topics/keywords were created without any changes made to the original question submitted. Tables 2-7 below include the topics/keywords per area.

Table 2. Administrative Services

Topics/ Keywords
aquatics center/ swimming pool
books/ get books
Bursar
business office
parking

Table 3. Instruction

Topics/ Keywords
academic programs / program
accredited
associate degree
How do online classes work
online course
EMS
Honors Program
respiratory care
respiratory therapist

Table 4. Student Services

Topics/ Keywords
Admissions & Records
I 098T
academic calendar
academic renewal
admission and records
admissions email
admissions received
apply /applying
appointment Admissions
attended Crafton before go back
authorization code
change last name
class print out
classes starting
classes offered
classes online
class's drop date
contact admissions
cost of attendance
course/ courses
course offered
dates I attended crafton hills
day college resume
degree mail
dual enrollment/ dual enrollment credit/ dual enrollment forms
dual high school
dually enrolled Crafton Velley
due date for grade submissions
enrolled Crafton
enrolled valley class here
Enrollment
first day school
first thing need attend
form admissions
got accepted
Health Fee
high school student enroll
high school transcrip[t]s
How long get refunded for a dropped class
HS Transcript
hybrid
last day add
last day to drop
look for classes
money students account
never recieved email with Student ID
next step
on the hunt for class
order transcripts
out of state students
pay classes
pay student fees
petition graduate

reapply/ re-applying
register
register checklist
Register classes
residency
resident unit fee
restart
sign up math
sign up semester
signing up for classes/ take classes
speak admissions
start date semester/ semester start
student ID help
supplemental residency questionnaire
transcript/ transcripts/ transcript help/ official transcript/ get transcripts/ unofficial transcripts
trouble registering
tuition
units full time
Veteran's counselor
what happens to money paid
when classes are
where do you start
Counseling
academic hold
appointment counseling/ counseling appointment
appointment counselor
change major
class conflicts
class recommend
counselors number
find counselor
fulfill requirement
help registering class
help with classes
IGETC
new student advisement
online orientation/ orientation/ new student orientation
over load
petetion course load
retake course
schedule meeting counseling/ scheduled m[e]eting counselor
SEP/ sep
setup sep meeting
speak to counseling
speak to someone about registering
switch majors
Financial Aid
bog
Cal Grant
can't afford college
do not qualify fasfa anything else
fasfa
Financail Aid

financial advisor
financial aid approved
financial aid email
financial info
help financial aid
Library
access EBSCO/database EBSCO/ EBSCO/ ebsco login /login ebsco
chrome book
educational data base
hotspots
login databases
print at library/ printing
Test Center
Assesment test
clep exam
Credit Examination
free programs
promise program
take assessments
Trying to find placement assesment
COACH Cupboard
pantry
homeless
coach cupboard
Hungry

Transfer Center
appointment transfer counselor
transfer
want to transfer
Student Life
id card
student ID card
college id
Academic and Career Programs
certificate
Fire technology
Health and Wellness Center
immunization records
health and ellness
EOP&S/CARE
eops
care program
Other
emergency assistance
courses at Valley
cranium cafe
DPSP office
GED
knock on door button does not appear
schedule appointment
summer bridge

Table 5. District Help Desk

Topics/ Keywords
access class
access email/ access student email/ student email
get email
help canvas
id number/ student id number
issues canvas
online access
sbccd portal
web advisor
wrong email

Table 6. Miscellaneous

Topics/ Keywords
appointment
been trying to get help
cancel adobe
cancel scheduled meeting
cannot find it
crafton website updated
changing password wasnt authorized
class cancelled
conexed account
Coronavirus/ covid-19 restrictions
covered for fall
Crafton visit
Daca

data hotspot
directed me this helpbot
employment pages/ employment?
find my email address
find staff email/ professor email/ Teachers email
gde program
go into meeting
grants
help answering question/had few questions/ have question
Help Google docs
how do i do that
how exactly do i get this to work
international student

job opportunities on campus / working on campus
lab
live staff member/ need a real person someone to speak with/ speak to a live staff member/ someone live please/ speak to someone/
map
message box annoying
need internet
office 365
on campus class
Online class tutorial
online or hybrid/ online schooling
schedule
scheduled meeting never got link
scholarships
see grade
set a zoom meeting

someone fast help
someone speak Spanish
something I'm doing wrong
Staff member
support class
supposed to be in meeting
take my test
Taxes forms
technical difficulty/ Technical support?
they are all offline
transfer appointment
What can you answer
where begin
where can i find cafe
work not a student
What are Zoom answer center hours

Table ends

Table 7. Not Applicable

Topics/ Keywords
course number
helpdesk
No one is online
type pdf file

Limitations and Suggested Changes for Improvement

A limitation to these findings includes the timeframe the data was collected (6/22/20-7/21/20), questions posed by individuals can be expected to be different at various points of the semester and academic year (i.e., registration, drop dates, finals, graduation, etc.). The OIERP provided the web developer with a spreadsheet of questions, categorized by area, to help organize improvement efforts. The spreadsheet provided includes the original question posed by the user, topic/keyword, area best suited to provide information requested, URL link to appropriate resource webpage, and notes. It should be noted that although the researchers worked together to identify appropriate resource webpages to direct questions, these links will still need to be vetted to ensure the selected webpage is the most suitable and that the information on the webpages contains the most updated information. To reiterate, the questions individuals posed were not changed as to keep the integrity of the data and help the web developer identify additional ways individuals may be asking the same question without a successful answer.

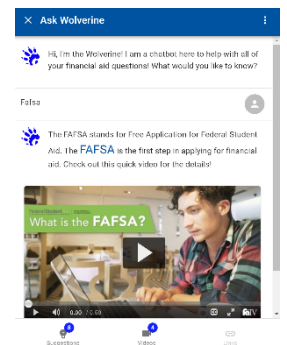
The following includes a list of notes to consider when making improvements:

- The [Admissions & Records FAQ webpage](#) covers questions and answers that were asked by individuals in this sample, this would be a great resource page that the Helpbot can use to direct individuals to appropriate answers based on specific questions.
 - Examples of topics and questions asked that can be answered through this page are included below:
 - Apply → “Hi can I still apply for fall 2020?”
 - Residency → “How do i send in my supplemental residency questionnaire”
 - Assessment test → “how do i take the assesment test”
 - Refund → “How long does it usually take to get refunded for a dropped class?”
 - Transcript → “order transcripts online”, “Hi, I'm trying to request a copy of my transcripts.”
 - Drop course → “how do you find a class's drop date”
 - Register for class → “I need help registering for a class”
 - Pay courses → ”Do I have still have to pay for online classes???”
 - Add class → “Hi, when is the last day to add for this semester that started July 6th?”
 - Apply graduate → “I need to petition to graduate in order to officially receive my AA”
- It is suggested that when an individual asks for general help through the Helpbot, they are automatically directed to the [Student Resource webpage](#) as this page contains links and information to many useful campus

resources. Additionally, when an individual asks for a live person they should be directed to the [Online Answer Center via Zoom](#) to speak with someone.

- Example questions that should be directed to these resources include:
 - “hello i have a question”
 - “i need help answering a question, i am a student currently enrolled.”
 - “i applied in february of 2020 and have been trying to get help to get information on school.”
 - “how do i do that”
 - “how can I get ahold of someone for fast help”
 - “someone live please”
 - “Can I speak to someone?”
 - “Can I speak to a live staff member?”
 - “i need a real person”
 - “What are the Zoom answer center hours?”
- There should always be a live staff member available during business hours to answer questions when the “Chat Now via Zoom” option is selected. Departments should also do their best to have at least one staff member online during business hours for online appointments. The following interactions suggest individuals may have had an experience where there was no one available based on the following comments, “No one is online” and “they are all offline.”
- Information on [Food Pantry- Coach’s Cupboard](#) should be included in the student resources page.
 - Example question/keywords that should be directed to this resource include:
 - “pantry”
 - “hungry”
 - “when is coach cupboard open?”
- Departments should ensure that their contact information is easily accessible to students.
 - The following conversations indicate individuals are requesting this information:
 - “admission and records phone number”
 - “What is the admissions email address”
 - “i need the financial aid admin email”
- It is suggested that the staff directory or “Find People” tab is included in a place where individuals can easily find staff or faculty emails.
 - The following conversations demonstrate individuals are requesting this information:
 - “How do I find Teachers email so I can email them”
 - “I would like to know an email of a staff member”
 - “Where can i find staff email”
 - “email of professor”
- Lastly, it is suggested that San Bernardino Valley College’s (SBVC’s) Wolverine chatbot is used as a model to help improve our own Helpbot at Crafton (screenshot is included below). There are a few features that have the potential to be extremely helpful, such as the suggestions option which lists questions based on the keyword typed, related videos, and the option to enter contact information to connect with someone on campus.

- An illustration of when obtaining contact information may have been useful include the following conversations were individuals expressed dissatisfaction, confusion, or need for support:
 - “this message box is so annoying”
 - “Is there something I'm doing wrong?”
 - “how exactly do i get this to work”
 - “What can you answer”
 - “i'm homeless”



Ultimately, the intent of this report is to help inform areas of improvement that will increase the ability of Crafton’s Helpbot in successfully directing individuals to fast and accurate information as individuals pose questions.

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