I. Information on Instructors and Teaching Assistant:
   Instructor: Dr. Jayson JIA
   Email: jjia@hku.hk
   Phone Number: 3917-1611
   Office Location: KK Leung Building 717
   Teaching Assistant:
   Email: 
   Phone Number: 3917-4490
   Office Location: KK Leung Building 609
   Office Hours: By appointment (no tutorials)

II. Class Time:
   Tuesday: 13:30-16:20 for 2A, Thursday: 13:30-16:20 for 2B – both at KKLG 110

   In addition, students must meet group members outside of classroom time to work on their group projects and group exercises (need to eventually form groups of 3-4).

III. Course General Information:
   Course Description
   The internet, in its numerous forms, is a central part of the modern economy and has fundamentally altered the shape and scope of human behavior and business practices. This course breaks down the entire digital space into three fundamental dimensions; time, space and connections. In exploring these spaces, this class will also cover the concepts, theories, and applications behind big data in marketing and behavioral sciences, digital advertising, social network behavior, mobile marketing, social media, CRM systems, omni-channels, digital platforms and value creation, and new consumer behavior topics.

   To future-proof your education, this class has a strong emphasis on the basic scientific research that forms the conceptual basis for all digital marketing, and provides an abstraction for knowledge that will remain relevant after existing technologies and firms become obsolete. Methodologically, the major emphasis of this class is to learn how to interpret, understand, and think about data from digital platforms from a social science perspective in order to generate (marketing) value.

   This is a seminar-style class, requiring extensive reading, classroom data analysis, and your active participation. Lectures, discussions, live data-analysis demonstrations, class exercises, video pieces, and student-led presentations will be major components of the class.
Note on work-load and work style
The learning outcomes of this class are conceptual knowledge; applied skills will also come from understanding how to successfully apply scientific concepts and knowledge in marketing and business contexts. Students will be more rewarded by active participation, pro-active learning during exercises, and steady studying (i.e., doing the readings consistently).

Course Prerequisite
This course is designed for students with a basic marketing background with an interest in digital marketing. Previous background in marketing/social science research is very useful but not required. Some statistics background is strongly recommended. Those with no statistics backgrounds are expected to learn basic linear regression in their own time. Necessary software, analytics tools, and statistics will be taught in class.

Course pre-requisites: BUSI1004 Marketing / MKTG2501 Introduction to Marketing

Articles that are assigned readings are available for download on Moodle.

Required books (available at University Book Store):


IV. Course learning outcomes.
CLO1: Describe the fundamental technologies and institutions on the commercial Internet.
CLO2: Examine consumers’ behaviors in the online environments.
CLO3: Explain how Internet technologies can be transformed to effective marketing strategies and to capture social behavior.
CLO4: Identify and evaluate the opportunities and problems that the commercial Internet presents to marketing effort.
CLO5: Apply the knowledge and skills in analyzing cases about marketing on the commercial Internet.
CLO6: Apply the knowledge and skills by practicing online marketing plan development.

V. Course Objectives:
1. To build a conceptual understanding of the marketing science behind various online marketing techniques and tools.
2. To discuss the latest marketing strategies, methodologies, and scientific methodologies provided by the Internet.
3. To understand how Internet technologies lead to changes in marketing efforts.
4. To apply the knowledge and skills in developing Internet/digital marketing plans.

V. Programme Learning Outcomes (PLOs):
PLO1: Acquisition and internalization of knowledge of the programme discipline
PLO2: Application and integration of knowledge
PLO3: Inculcating professionalism and leadership
PLO4: Developing global outlook
PLO5: Mastering communication skills

VI. Course Learning Outcomes (CLO):

<table>
<thead>
<tr>
<th>Course Learning Outcomes (CLO)</th>
<th>Alignment with Program Learning Outcomes* (PLO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLO1. Describe fundamental social science concepts, theories, and</td>
<td>PLO1,2,4</td>
</tr>
</tbody>
</table>
technologies on the commercial Internet

CLO2. Examine and analyze consumers’ behaviors in the online environment  PLO1,2,4

CLO3. Explain how Internet technologies can be transformed to effective marketing tactics and strategies  PLO1,2,4

CLO4. Identify and evaluate the opportunities and problems that the commercial Internet presents to marketing effort  PLO2,4

CLO5. Apply the knowledge and skills in analyzing cases about marketing on the commercial Internet  PLO2,3,4

CLO6. Apply the knowledge and skills by practicing online marketing plan development  PLO2,3,5

VII. Teaching and Learning Activities (TLA):

<table>
<thead>
<tr>
<th>Teaching and Learning Activities</th>
<th>Expected Contact Time (approximate)</th>
<th>Study Load (approximate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLA1: Interactive Lectures with Discussions/Class Exercises</td>
<td>36 hrs</td>
<td>26%</td>
</tr>
<tr>
<td>TLA2: Assigned readings, homework assignments, and preparing class discussion</td>
<td>20 hrs</td>
<td>14%</td>
</tr>
<tr>
<td>TLA3: Final Project – Presentation and Paper</td>
<td>48 hrs</td>
<td>34%</td>
</tr>
<tr>
<td>TLA4: Self Study</td>
<td>36 hrs</td>
<td>26%</td>
</tr>
<tr>
<td>Total:</td>
<td>140 hrs</td>
<td>100%</td>
</tr>
</tbody>
</table>

TLA1: Interactive Lectures with Discussions/Class Work

- Interactive lectures will be provided by the instructor to illustrate and reinforce key marketing concepts and principles. Students are expected to have pre-class reading and preparations and encouraged to share their views and experience actively in class discussions to deepen their learning.

- **Readings are necessary for the class. Previous week’s readings will be discussed at the start of each class.**

- Scientific research from social and data sciences and examples of company cases/ videos/applied marketing scenarios will be integrated in the lectures and class discussions. Students will be challenged to view marketing from different perspectives (e.g., consumer, company, competitors) to enhance their critical thinking skills.

- Individual and group exercises during class time will be conducted to develop and reinforce theoretical understanding of material. These will focus on developing a deeper understanding of conceptual ideas via hands-on class-room engagement with internet data.

- Class work will be used to deepen students’ learning and develop their application capability on specific topics. Students are expected to address issues posted in these class exercises and share their thoughts in class. Verbal/ written feedback from lecturer, peer, and/or self will be used to facilitate continuous learning.

TLA2: Homework Assignments

- Graded pass/fail.

- 1 page data analyses exercises that combine learning useful types of analysis (e.g., drawing social network graphs, sentiment analysis, etc.) with concepts introduced by the week’s readings. This is to ensure critical learning and thought is applied to the assigned readings, which will be a combination of basic science research and an applied data scenarios.

- This dual approach will encourage deeper theoretical understanding of material and also teach students how to apply basic science findings in analytical or applied contexts.

- Some homework exercises will be group work.
TLA3: Final Project: Digital Marketing Plan
- Group new product/service marketing plan project will allow students to go through the steps of the marketing planning process from the perspective of a marketing manager/entrepreneur and integrate the learned digital marketing concepts and skills in an applied business situation.

- Major goals:
  - to promote students’ active learning
  - to develop students’ skills on critical thinking, analytical, and problem-solving
  - to stimulate students’ creativity
  - to enhance students’ skills on communication, presentation, and teamwork

- Project Background and Requirements:
  - Build a digital marketing strategy and conduct digital marketing analysis for an existing firm that wishes to expand beyond the scope of traditional marketing into internet-based domains.
  - Alternatively, students may also choose to pitch a new ‘start-up’, but this will be more difficult.

  - Each group will first select a company and then conduct a situation analysis by collecting and analyzing relevant information, proposing how to use big data methodologies covered in the class, suggest marketing solutions that mesh in the digital space, and make recommendations on digitally-driven marketing strategy and strategic development that also have sound marketing logic.

  - Project should be largely focused on material learned in this class (90%), but also include some consideration of traditional marketing concerns/questions.

  - There is a major emphasis on data analysis, methodology, and applying concepts learned in this class.

  - Each group is required to (1) make a 20 minute group marketing plan presentation in class followed by a 5-minute Q&A session and (2) submit a group written marketing plan report (15 pages, Times New Roman 12, double spacing, plus supporting materials, graphs, and visualizations)

  - Individual groups can seek instructor’s feedback on its presentation performance and areas for improvement after the completion of group presentation.

  - Groups may refer to the frequently-asked questions FAQ page posted on the course Moodle for more information about the group marketing plan project.

TLA4: Self Study
- For each class students are expected to have pre-class reading (including the assigned textbook chapters and supplementary materials) and preparations for class discussions/activities.
  - Previous week’s readings will be discussed at the start of each class.

  - Helpful ‘how to guides’ will be distributed to the class so that students can master new analysis and software at their own pace.

  - Students are also expected to review and integrate the learned marketing topics for their case study, marketing plan project, and final examination.

VIII. Assessment Tasks (AT):
Students will be assessed by a combination of the group work (50%) and individual work (50%). The table below indicates the weighting for each assessment task and the alignment of assessment tasks with teaching and learning activities and course learning outcomes:

<table>
<thead>
<tr>
<th>Assessment Tasks (AT)</th>
<th>Weights</th>
<th>Teaching and Learning Activities (TLA)</th>
<th>Course Learning Outcomes (CLO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT1: In-class Participation and Exercises</td>
<td>10%</td>
<td>TLA1, TLA2, TLA3, TLA4</td>
<td>CLO1, CLO2, CLO3, CLO4</td>
</tr>
<tr>
<td>AT2: Exercises and assignments (start in class, finish for homework)</td>
<td>15%</td>
<td>TLA1, TLA2, TLA3, TLA4</td>
<td>CLO1, CLO2, CLO3, CLO4</td>
</tr>
<tr>
<td>AT3: Test (individual assessment)</td>
<td>35%</td>
<td>TLA1, TLA2, TLA3, TLA4</td>
<td>CLO1, CLO2, CLO3, CLO4</td>
</tr>
<tr>
<td>AT4: Group Marketing Plan Project</td>
<td>40%</td>
<td>TLA1, TLA2, TLA3, TLA4</td>
<td>CLO1, CLO2, CLO3, CLO4</td>
</tr>
</tbody>
</table>
  - Presentation (20%)
  - Written Report (20%)
Peer Evaluation for Group Work:
- In normal cases, individual group members receive the same total score for their group’s score. However, in some cases, individual group members’ scores will be adjusted depending on their efforts, performance, and contributions to the group work.
- At the end of the semester, students are required to evaluate themselves and other group members independently and submit the Self and Peer Evaluation Form. The group’s overall peer evaluation results will be used as one of the references for determining an individual student’s total score of group work.

AT1: Class Participation (10%)
- Students are expected to prepare for each class by completing pre-class assigned reading materials and works and actively participate and contribute to the class discussions and activities.
- If students have missed a class, they are responsible for everything taught or announced in the class on the day of their absence. No make-up arrangement can be made for any missing class work and activity.
- With the purpose of continuous learning and improvement, the assessment of class participation is regarded in this course as an assessment for learning. Students are expected to (1) prepare for the pop-up class work by studying and integrating the learned knowledge in class and assigned readings, and (2) reflect on the self-learning strategy and effectiveness in the group process in the mid and/or end of the course.
- Class Participation will be assessed against the following criteria: (1) clarity and accuracy of responses in class discussions and activities and (2) frequency and quality of class contribution.

AT2: Student homework assignments (15%)
- Homework assignments will be set for 2 methodological aspects (smart data usage and social network analysis) of the class to ensure that students understand how to use appropriate class-room taught techniques and software (recommended: Gephi and SPSS, which are available in our computer labs).
- Assignments will be graded on a pass/fail basis: 0 or a ‘check’. A bonus ‘check plus’ grade may be awarded to outstanding assignments.

AT3: Test (35%)
The in class test (which will NOT be conducted during final examinations week) will be cumulative of material taught up to date of exam. Students are responsible for all the materials covered thus far in the course. The exam will be used to assess students’ (1) understanding of key internet marketing principles and concepts, (2) application of the learned knowledge and skills to identify critical marketing issues and recommend solutions relevant to the contexts, and (3) the effectiveness of written communication.

Students will be allowed to bring one A4 sheet (2 sides) of handwritten notes (no photocopies allowed).

The examination will cover material from assigned readings and assigned chapters from the two books only. Materials from class lectures/slides that do not feature in the readings will not be tested.

Methodological questions may ask for some basic calculations and/or ask students to interpret data, e.g., experiment results, linear regression results, or social network graphs/data.

Essay questions will be used to evaluate students’ ability to integrate and apply the learned knowledge and skills to identify marketing and scientific problems and critical issues, compare, contrast, and evaluate alternatives, and/or recommend solutions relevant to the contexts. The responses to the essay questions will be assessed against the accuracy, thoroughness, clarity, and organization of the responses to the required questions.

AT4: Internet Marketing Plan Project (40%)
- Goal of project is to use ideas and methods learned in class about digital marketing to change an existing organization with a limited digital strategy OR to solve an existing business/social problem
- Group new product/service marketing plan project will be used to assess students’ ability to (1) obtain and integrate relevant information to understand and analyze marketing situations, (2) identify critical
issues, problems, and opportunities in ill-defined/novel situations, and (3) apply relevant findings and appropriate internet marketing approaches, tools, and concepts to recommend implementation plans of marketing strategies and program specific to the contexts with considerations of social responsibility and ethical issues. The effectiveness of presentation and written communication will also be assessed.

- Each group will be required to create a powerpoint for the assigned case (a firm or sector of their choice). The group case study report should include:
  1. Marketing problems or key managerial decisions to be made with regards to internet marketing topics
  2. Analysis and evaluation of critical issues using concepts and methodologies learned in class
  3. Strategic use of methodologies is the most important part of the exercise. Usage of smart data and relevant analytics (e.g., social network analysis, index creation) will be graded on logic of proposed methodology, and not necessarily results.
  4. Data collection from fellow students will be required (instructor will organize this so that everyone completes one long survey that contains all groups’ questionnaires).
  5. Recommendations with supporting arguments – use frameworks and strategies from class
  6. Lead classroom discussion and be responsible for encouraging and facilitating high quality audience engagement on topics of their choice.
  7. Group member assessments will be conducted at the end of the year to prevent free-riding.

- The group new product/service marketing plan project consists of oral presentation (20%) and written report (20%) will be assessed against the following criteria with specific weightings indicated in the table below:

<table>
<thead>
<tr>
<th>Assessment Criteria for Group New Product/Service Marketing Plan Project</th>
<th>Group Oral Presentation (100%) (a summary of key analyses)</th>
<th>Group Written Report (100%) (full version with details)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conceptual: Application of concepts and theories</td>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td>Methodological/Analytical: Application of methodologies (data analytics, social network analysis, etc.)</td>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td>Application/Recommendations: Applying frameworks to generate insight and valuable strategic conclusions/recommendations</td>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td>Effectiveness of presentation/writing</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Total:</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

IX. Standards for Assessment:

**Course Final Grade:**

Individual student’s final grade for the course will be assigned according to the accumulative score that s/he has obtained from all of the assessment tasks:

Course Final Grade = Class Participation (10%) + Discussion and Homeworks (15%) + Test (35%) + Group Marketing Plan: Presentation (20%) + Group Marketing Plan Report (20%)

<table>
<thead>
<tr>
<th>Course Final Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+, A, A-</td>
<td>Consistently demonstrate a thorough grasp of the subject as evidenced by achieving an outstanding performance in understanding of marketing principles and concepts, critical analysis and synthesis, application of knowledge, formulation of marketing solutions, written and verbal communication and teamwork skills.</td>
</tr>
<tr>
<td>B+, B, B-</td>
<td>Frequently demonstrate a substantial grasp of the subject as evidenced by achieving a proficient performance in understanding of marketing principles and concepts, critical analysis and evaluation, application of knowledge, formulation of marketing solutions, written and verbal communication and teamwork skills.</td>
</tr>
<tr>
<td>C+, C, C-</td>
<td>Occasionally demonstrate a general grasp of the subject as evidenced by achieving a moderate performance in understanding of marketing principles and concepts, analysis and evaluation, application of knowledge, formulation of marketing solutions, written and verbal communication and teamwork skills.</td>
</tr>
<tr>
<td>Grade</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
</tr>
<tr>
<td>D+, D</td>
<td>Demonstrate a partial grasp of the subject as evidenced by achieving an adequate performance in understanding of marketing principles and concepts, analysis and evaluation, application of knowledge, formulation of marketing solutions, written and verbal communication and teamwork skills.</td>
</tr>
<tr>
<td>F</td>
<td>Demonstrate a poor grasp of the subject as evidenced by achieving a poor performance in understanding of marketing principles and concepts, analysis and evaluation, application of knowledge, formulation of marketing solutions, written and verbal communication and teamwork skills.</td>
</tr>
</tbody>
</table>

### X. Course Policies

**Late Assignment Penalty:**
- All assignments are required to be submitted on or before the specified due date and time to the assignment submission destination. The penalty policy for any late assignments will be as follows:

<table>
<thead>
<tr>
<th>No. of days later than the due date</th>
<th>Deduction of the total point</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 day</td>
<td>deduct 25%</td>
</tr>
<tr>
<td>2 days</td>
<td>deduct 50%</td>
</tr>
<tr>
<td>3 days</td>
<td>deduct 100%</td>
</tr>
</tbody>
</table>

**HKU Regulations on Academic Dishonesty:**
- We are serious in students’ ethical conducts. The University Regulations on academic dishonesty will be strictly enforced.
- We do not tolerate students engaging in academic dishonesty which includes, but is not necessarily limited to, plagiarism, paraphrasing of someone else's ideas, unauthorized collaboration on out-of-class projects, cheating on in-class exams, and unauthorized advance access to an exam.
- Students are expected to be aware of what plagiarism is and how to avoid it. Please refer to the HKU policies on plagiarism.
- Students should also be familiar with the HKU regulations and policies particularly on attendance, absence, examination, and copyright. Please refer to the HKU Undergraduate Student Handbook and HKU Examination Unit webpage.

### XI. Additional Course Information

**Moodle Course Web Site:**
- Students are expected to access the Moodle course frequently for learning supports and new announcements.

**Turnitin Check:**
- Students should avoid plagiarism and have proper citations for their work. Students’ written assignments and reports will be sent to the Turnitin for originality check.

**Additional Information on assigned projects:**
XII Provisional Class Schedule (subject to change)

*The required book “Connected: The surprising power of our social networks and how they shape our lives” will be referred to as “Connected” below. If no page numbers are mentioned, then the entire book chapter is assigned as reading. The book chapters assigned for reading are listed below.*

<table>
<thead>
<tr>
<th>Class</th>
<th>Topics</th>
</tr>
</thead>
</table>
| Week 1 | Course Introduction and Overview  
Digital Money Machines: Data-driven Advertising and Service Platforms  
**Assignment:** Form final project groups (3-4 people)  
**Readings:**  
| Week 2 | Web search data and applications + Temporal Behavior  
**Individual Assignment:** (always due by start of class the following week)  
1) Combine google trend index with another source of data (not from google search) – discuss possible relationships between the two – Share next class.  
2) Fill in class social network survey*  
*Participation in class surveys WILL BE GRADED  
**Readings:**  
Skim (look at briefly):  
| Week 3 | Social Networks 1 (Structure and Relationships)  
**Individual Assignment:** Draw basic class social network with you at the center, and report required calculations about yourself – submit printouts.  
**Group Assignment:** Come up with a 1-question survey to measure a behavior that you can combine with the social network data (need for next week’s homework). |
<table>
<thead>
<tr>
<th>Required Readings:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• <em>Connected</em>: Chapter 1, 2, and 3</td>
</tr>
</tbody>
</table>

**Week 4**  
Social Networks 2 (Social Networks Behavior and Applications)  

**Group Assignment:** Draw class behavioral social network and report required calculations – submit printouts. Submit 1 per group with all your names on the sheet. Due on Feb 21.  

**Readings:**  
• *Connected*: Chapter 4-5

**Week 5**  
Digital and Field Experiment Methods  

**Readings:**  
• *Tap*: Chapters 11, 12 (pg. 147-178)

**Lunar New Year Week**

**Week 6**  
Social Media Marketing, Contagion, and Digital Content  

*Lottery Drawings for presentation order (trading allowed)*

**Group Assignments:**  
• Get as many likes as possible for an ‘ad’ on social media  
• **Final Project Proposals due next class (after reading week) (0.5-1 page)**

**Readings:**  

**Reading/Field Trip Week – Work on proposals**

**Week 7**  
Mobile Marketing and Mobile Services  

*Share results of social media post homework*

**Assignment for rest of semester: work on final project**

**Readings:**  
• *Tap*: pg. 25-78
<table>
<thead>
<tr>
<th>Week 8</th>
<th>Physical-Digital Interfacing, Channels, and Platform Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Case: Tencent and Alibaba ecosystems</strong></td>
</tr>
<tr>
<td></td>
<td><em>Tap</em>: Chapters 6, 7, 9 (pg. 79-106, 118-134)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Week 9</th>
<th>A Time-Space-Connected Framework for big-data marketing strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Case Discussion: Pokémon GO – New marketing in the mobile age</strong></td>
</tr>
<tr>
<td><strong>Readings:</strong></td>
<td><em>Tap</em>: Chapters 13, 14, Epilogue (pg. 182-204)</td>
</tr>
<tr>
<td></td>
<td><em>Connected</em>: Chapters 8-9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Week 10</th>
<th>Dynamic consumer experiences, IoT, Privacy, and Emerging/Future Trends</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Readings for next 2 weeks:</strong></td>
<td>(will help your projects)</td>
</tr>
<tr>
<td></td>
<td><em>Tap</em>: Chapter 10</td>
</tr>
<tr>
<td><strong>Optional:</strong></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Week 11</th>
<th>Final Project Presentations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 12</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Week 13</th>
<th>Test (In class 2 hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>= Books and first 9 weeks readings are fair game (will not include scientific journal readings)</td>
</tr>
<tr>
<td></td>
<td>Final Papers Due 12:00pm May 7 electronic AND paper copy (in assigned dropbox)</td>
</tr>
</tbody>
</table>