

List of potential/suggested topics/fields for your final case studies

Pick a topic/event different from any of those already discussed/included in the book, as well as the Deepwater Horizon/BP oil spill and the Wenzhou High-speed Rail Collision.

-If you're working on **capstone** projects that have broader social and ethical implications/consequences – or you've worked on such projects in **internships** or **VG100**, for example – then I HIGHLY encourage you to consider choosing a topic related to these, integrating your present/past experiences and future aspirations.

-Recent, “hot” topics: Facebook and Cambridge Analytica, “dockless, app-based shared bicycles” (DABSB), for example, Mobike and Ofo, Chinese social credit rating system

-Corporate Social Responsibility among engineering/technology firms: Specific campaigns and/or broader objectives, for example, Google and wifi

-Artificial intelligence: Problems and opportunities, fears and hopes, Deep Blue, Alpha Go, driverless cars, etc. – what is “intelligence” and what role does “culture” play in the use of AI?

-“Big data”/privacy in engineering: Collecting information on users, the ends towards which this information is used – Equifax, “social” rating scores, etc.

-Financial engineering: Trading (buying and selling) based on computer programs/algorithms, opportunities and problems

-Environmental engineering/“green”/sustainable technologies: Engineering a better world for future generations, opportunities and challenges

-Bio-medical/genetic engineering: Engineering and its relation to human life, good-bad, hopes-fears – what's difference between genetic engineering and the way(s) the human species has evolved in relation to technology?

-Engineering and service/voluntarism: Non-for-profit engineering groups, projects that aim to help the poor/those in the developing world

-Engineering/technology-related education: In general and international/cross-culturally – using technologies in education. (Zhang Kemeng and I have strong interests in this and would be happy to help you out.)

-Engineering and women: Programs to get more women involved in the field of engineering, successes and failures – sexual discrimination and harassment in tech firms, Silicon Valley, Uber, Tencent, etc.

-Agricultural engineering: Technologies and crops to support water and food needs, nationally and internationally, GMO's

-Video games: Gaming companies and social responsibility – Do video game companies have responsibilities to their users and the public, with regard to, for example, video game addiction, developing games to assist in research, etc.? (The following is a link to an interesting book I read on gaming: http://www.amazon.com/Reality-Broken-Games-Better-Change/dp/0143120611/ref=sr_1_1?ie=UTF8&qid=1442900569&sr=8-1&keywords=reality+is+broken+why+games+make+us+better+and+how+theyread)

-Large-scale engineering projects in developing countries – for example, China, India, Brazil, etc. – Social, legal, environmental, political, economic, etc. issues related to large-scale development projects. (In China, for example, this could include the West-East Pipeline, Three Gorges Dam, or high-speed rail network.) What are the costs and benefits associated with such projects? How are or aren't these similar to projects that have occurred/are occurring in other countries/parts of the world? Why or why not?

-Lithium(-ion) batteries: Opportunities and problems, their use in computers, cellphones, airplanes, cars, "hover" boards, etc.