MSCI 311, Winter 2023
Field Assignment: Bureaucracy and Information Technology

To be completed in groups of at most 4 people.
Due: March 12

Can information technology solve some of the traditional problems of bureaucracy? Does information technology introduce new kinds of bureaucratic problems? In this project, your job is to critically examine the use of information technology as part of an organization's bureaucracy and make recommendations for improvement.

Specifically, your study should investigate bureaucratic dysfunctions related to the use of information technology in some organizational situation. Describe how the technology is being used to support communication, coordination, decision-making, or other organizational processes. Use examples and evidence from the situation to describe bureaucratic problems related to the use of the technology. Recommend potential solutions to the problems identified. Support and justify your recommendations with good arguments, examples, evidence, etc., to convince the reader that your proposed solution would improve the situation. Discuss the potential risks or negative consequences of your proposal (e.g., the possibility that your solution might lead to new forms of dysfunctional bureaucratic behaviour.)

Focus on a relatively small, manageable situation for your study (e.g., use of technology to perform one or two organizational processes, a single department or small business, etc.). Do not try to study a huge bureaucracy with many complex problems (e.g., an entire government department) or a huge IT system with many different functions that you will not be able to analyse in detail. The depth of your analysis is more important than the breadth.

If possible, study an organizational situation you are already familiar with, and that you think could be modified to operate more effectively. If you study a situation you know nothing about, it will be very difficult to get detailed, accurate information about organizational problems. (People generally prefer to tell outsiders that everything is working just fine.) If you choose an organizational situation that you already know about you will have a better chance of getting accurate information about what is really going on. And if you choose a situation that you know isn't working perfectly, there is a better chance you will be able to identify substantial issues and be able to make interesting recommendations for improvement.

Report Grading

Part I: Description and Analysis of the current situation (50%)

a) Background
Provide basic background information about the organization and the situation you have chosen to analyze. This should include a brief description of the main activities of the unit/organization, its products or services, etc. If you are analyzing a department or unit of a large organization, briefly describe the larger organization and how the unit fits into it. A brief description of the broader industry context may also be appropriate.

b) Methods of obtaining information
Describe how you obtained information about the situation. Besides your own observations, you should conduct at least one interview with someone familiar with the situation, to get more than one point of view. Indicate who you interviewed, their role in the organization, and the interview questions you asked. If you have direct personal experience with the organization, describe your connection and your role in the organization. Include a list of references at the end of your report for any sources of information used in your report.

c) Description and analysis of the current bureaucratic situation, use of technology, etc.
Describe how the situation is formally supposed to work. Depending on the situation, your description might include some of the following:

-How is work divided among different individual roles, departments, etc? Who does what? Who has authority over what decisions?
-What organizational processes are performed by technology? How is the system supposed to work? How do people use the system (enter data, communicate with one another, use the system to make decisions, etc.)?
-What rules, procedures, etc. do people follow to do their work? In some cases it may be useful to use a diagram or flowchart to describe the steps in a complex process.
-What are the intended consequences of the bureaucratic arrangement you are studying? E.g., what goals or objectives are the bureaucratic procedures/technical processes designed to achieve?
-What is the rationale (if any) behind the design of the bureaucratic arrangements and/or technology? Why do you think things are done the way they are done? Were processes deliberately "designed" by anyone, or did they emerge out of informal practice? Even if procedures are informal (i.e., not written down, etc.) they may be clearly understood by everyone, and place strong constraints on how things get done. Informal procedures may also have some underlying logic or rationale that people use to justify and explain them.

d) Describe how the bureaucratic/technology situation works in practice.
Use theory and concepts from the course to analyze the situation. For example, some of the following questions might be relevant to your situation:
-How well does the bureaucratic arrangement and/or technology achieve its intended purpose?
-How does the technology interact with its social context? Think of it as a "socio-technical" system, with both technical and human/social components.
-What unintended/dysfunctional consequences result from the bureaucratic IT arrangement?
-What informal (effective and ineffective) patterns of behaviour arise?
-Do people use "workarounds" to cope with limitations of the technology? How?

Support your description and analysis with concrete examples and evidence from the situation. Try to convince the reader that you have accurately understood what is going on in the situation.

Finally: Focus your analysis on aspects of the bureaucratic situation that are relevant to MSCI 311 – i.e., issues related to the structure/design of bureaucratic arrangements and their behavioural consequences. You should not pay too much attention to issues at the individual or group level of analysis, such as individual personality, personal conflicts, leadership difficulties, etc., unless they are clearly related to structure and design concerns. (E.g., group conflict resulting from an inappropriate division of authority would be relevant to the course, but group conflict due to personality differences would not be relevant.) Also focus on "organizational" issues related to improving organizational processes and reducing behavioural dysfunctions due to IT use. Do not focus just on technical solutions to improve IT efficiency, user-interface design, etc.

Part II: Proposed Solution, Risks & Limitations (40%)

Make realistic recommendations about how the bureaucratic IT arrangements could be improved or modified to improve their effectiveness. If you are proposing a new information technology solution, describe and explain it in sufficient detail to understand how it would fit into the organizational situation you studied. Explain how your solution would alter the current situation and the behaviours of the people involved. Support and justify your recommendations and/or technology proposals with good arguments (including theory from the course where appropriate), example and other available evidence. Your proposal should follow logically from your analysis and diagnosis of the problems in Part I. Make sure that you convince the reader your recommendations and technology solutions make sense.

Critically examine your solutions and proposals for any potential weaknesses, limitations, risks, etc. Identify any assumptions that you have made in your analysis, as well as any other limitations to your study that might affect your recommendations (e.g., the amount and quality of the information upon which you analysis is based). Identify any risks associated with implementing your recommendations. For example, you should consider whether your solution might simply replace one dysfunctional bureaucracy with another. I.e., what are the potential side-effects or dysfunctional consequences associated with your recommended solution? How will the people involved likely perceive your solution? Will they try to develop new kinds of workarounds? No solution is perfect, so be self-critical and honest about the limitations of your proposal!

Report Presentation and Professionalism (10%)

You should submit an organized, professional report on your project:

- The report should be organized using appropriate section headings (e.g., Abstract, Introduction & Background, Methodology, Findings, Conclusions, Recommendations, Limitations, References, Appendices, etc.).
- The main body of the report should be no more than 10-12 pages long (double-spaced, 12 point font, with at least 1 inch margins.) A few extra pages are permitted for Appendices (interview questions, detailed interview results, etc.), title page, etc. Quantity ≠ quality!
- Edit your work carefully for correct spelling and grammar
- It is not necessary to include many pages of organizational history in the report. A brief background description of the organization and the situation you are studying is sufficient.

Professionalism & Confidentiality in Field Study Conduct

You will be seen as a representative of the University of Waterloo, so please behave professionally in all of your dealings with interviewees and the organization you study. Assure interviewees that you will protect their confidentiality and not share the information they provide with anyone except the graders for this course. Graders will keep all information confidential. If your interviewees prefer complete confidentiality, you are permitted to mask all identifying information by using fictitious company and individual names.

Some Basics on Citing References in Your Report

Be sure to give credit where credit is due, to avoid any possibility of plagiarism. Any method of citing references in your report is acceptable, as long as it is clear and you use the same style consistently. The following example illustrates one method of citing other people's work. You are not required to use this citation method, but it is probably one of the easiest to use:

> In the text of your report, cite the author and publication date (Smith, 2020). When you use the author's name in the text itself, Smith (2022) suggests that you only need to include the publication date in parenthesis following the author's name. If you are quoting directly from a published source, "you should cite the author, publication date, and the page(s) where you found the quotation" (Smith, 2020, pp. 101-102). To avoid confusion in cases where you quote more than one piece of work published by the same author in the same year, identify each publication separately (Smith, 2021a; Smith, 2021b).
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> > "Longer quotations from published sources, as well as direct quotations from your interviewees, should be indented from the main body of the text, so it is easy for the reader to identify them as quotations. Interviewees should not be named, to protect their anonymity." (Interviewee #1)
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> Include a list of references following the main body of your report (but usually before Appendices). Include a reference for every source that you cited in the report. You should include standard publication information that would enable a reader to locate the original source easily if desired. Following are examples for a journal article, a book, a paper published in an edited book, and an article published on the internet:
>
> Smith, A., (2020). "Title of journal article," *Title of Journal*, vol. 1, no. 2, pp. 101-110.
> Smith, A., (2021a). *Title of Book*. Waterloo, Ontario: Publishing Co.
> Smith, A., (2021b). "Title of article in book," in B. Smith and C. Smith (eds.) *Title of Edited Book*, Publishing Co., Waterloo, Ontario, pp. 201-210.
> Smith, A., (2022). "Title of internet article," http://www.somewhere.com/include_the_full_web_address.html (date accessed).