Activity: Ideation 2

Preamble

(The text in this preamble below has been ever-so-slightly adapted from "How to Become a Hacker" by Eric S. Raymond.)

The world is full of fascinating problems waiting to be solved.

Working in Information Technology is lots of fun, but it's a kind of fun that takes lots of effort. The effort takes motivation. Successful athletes get their motivation from a kind of physical delight in making their bodies perform, in pushing themselves past their own physical limits. Similarly, a happy I.T. professionals will get a basic thrill from solving problems, sharpening their skills, and exercising their intelligence.

You also must develop a kind of faith in your own learning capacity — a belief that even though you may not know all of what you need to solve a problem, if you tackle just a piece of it and learn from that, you'll learn enough to solve the next piece — and so on, until you're done.

Introduction

Last week we looked at several examples of technological innovations and thought about what made them sophisticated.

Because there is no one magic component of a good, sophisticated, idea we instead have "Shafer's Eight" questions. Recall that if you can reasonably answer yes to three or more of those questions when describing you're a project idea, then it is probably a good, sophisticated idea.

Shafer's Eight questions to think about when evaluating a new IS idea:

1. **Does it require roles?** Does your project involve users with different roles? For example: if you request an Uber ride there are at least two different roles in that process. The roles are *driver* and *passenger*. Users of the Uber system have different duties depending on their role, and different features of the Uber system are exposed to users based on their role.
2. **Does it leverage mobile technology?** Will your application be used primarily on a smartphone, tablet, laptop, or some combination of those things? Applications that run on smartphones can make use of geolocation, cameras, and other features that desktop applications can't. It is usually smart to design mobile user interfaces first and think about the desktop/laptop experience later.
3. **Do you need to model it?** Recall that an Information System can be thought of in terms of people, process, and technology. Is your project idea something that inspires the need for a swim lane diagram or a flow chart?
4. **Is it self-perpetuating?** Does your project idea support or create a virtuous cycle? (If you don't know what a "virtuous cycle" is you really should Google that term!)
5. **Does the solution require the use of status codes?** Data that appears, disappears and/or seems to move from one location to another based on a status code is often an indicator of sophisticated solution.
6. **Does it collect new data?** If your solution collects data that was previously unavailable or very difficult to obtain, then you are probably on to something good. But be careful, it's not enough to just collect data, you should also be able to summarize it in some way that is either prescriptive, predictive or (at the very least) engaging.
7. **Are APIs used in a series of steps?** For example: a Google map that always shows the exact same location is almost entirely useless. A map that *changes* location and displays information relative to the user's current location, can be more useful. To get that effect, you must use API data *in steps*. First, use an API to get the

user's geolocation (latitude and longitude). Second, call *another* API to render a map using that geolocation. That's (at least) a two-step process for the developer, but it looks like a single feature to the non-technical user.

8. **Is it disruptive?** A business with a disruptive business model attempts to address consumer demands that the current industry cannot (or will not) provide. Disruptive Business models often employ innovations in IS not used elsewhere. Disruptive systems often bypass entire processes that were constructed around legacy technologies (phone, fax, human clerks, paper forms, etc.).

Instructions

In this week's activity you will generate two new, unique-to-you, ideas. Your ideas need to fall into one of the following categories.

The categories are adaptions from the United Nations list of 17 Sustainable Development Goals. The original U.N. list of goals can be found here: https://sdgs.un.org/goals

You may not submit two ideas in the same category.

Generation of Revenue	Goal: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. See: https://sdgs.un.org/goals/goal8 Notes: Operating within the bounds of the law, come up with a revenue-generating business. Your imaginary business can be a small side hustle, a start up with big ambitions, or somewhere in between.
Improving Education	Goal: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. See: https://sdgs.un.org/goals/goal4 Notes: It would be smart to reflect on your own learning experiences. What works for you as a student? What doesn't? What would motivate you to learn? Try to draw a distinction between learning and getting good grades. Sadly, the two don't always go together. Education can be at any level (grade school, high school, college, vocational training , etc.)
Improving Physical Health	Goal: Ensure healthy lives and promote well-being for all at all ages. See: https://sdgs.un.org/goals/goal3 Notes: Health includes preventative medicine (i.e. diet & exercise), access to medical care, vaccinations, etc. etc. Please limit yourself to the arena of *physical* health. Solutions that claim to improve a patient's mental health by having them spend *even more time* online are not welcome. You might want to consider the needs of a specific group of people that are currently under-served.

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Instructions - Continued

1. Using the “Ideation 2” activity on canvas, submit your ideas as two separate discussion posts, one post for each idea.
2. In each post, explain at least *three* ways that your idea is sophisticated. Use and reference Shafer’s Eight criteria.
3. Also explain how your solution is innovative / original. For example: a ridesharing platform that uses mobile technology to broker the relationship between a car driver and paying passengers might be sophisticated, but it’s not original. (It’s not original because Uber and Lyft already do that.)
4. You can assume that you would be granted a generous amount of seed money from a mysterious donor to implement your solution. You don’t need to craft a financial plan.
5. You do need to operate within the bounds of reality (laws, regulations, existing technologies, etc.)
6. After you have shared out your ideas, go read the posts from your peers. Use the “like” option to like two posts that you believe are good ideas and are also within the bounds of the instructions here.