

What's Wrong With Explaining Things Today

And how it can be fixed

Summary

Existing means of finding explanations to different questions (such as search engines, offline resources) aren't specific enough, and need to be modified to be more efficient. That can be solved by breaking down long explanations to smaller pieces of info ("blocks") that can be better identified, mapped, monitored and stored. That would also allow optimizing of understanding processes, e.g. from quality and length points of view.

Mission

Production of these blocks can be done by creation or by breaking down and refining existing leading explanations, currently available in books and online resources (like Reddit, YouTube, Blogs, other websites etc). These blocks would then be used to construct explanation paths on a variety of subjects, for each student to follow and create his/hers understanding path. (An understanding path is what the student personally understood vs. an explanation path, which is the info that needs to be understood). The process would be dynamic, and would allow the student to react to each block by giving a Yes-I-got-it or No-I-didn't-get-it response. In case a block was not well understood by the student, it could be swapped with a similar block (which will actually be an explanation of the same step from a different angle). By monitoring and tracking the most used explanation blocks, each explanation path could be optimized to hopefully generate better understanding paths for future students.

Background

Let me take you to a possible scenario which takes place 1,000 years from now. Humankind has been able to maintain life on other planets and is continuing to pursue its mission of expanding to other more distant stars. People, however, still need to understand things on a regular basis: they need to implement outer pieces of information, process it, and create a physical representation on a molecular level, which can be retrieved later (what we call "*remembering*"). But then, more than ever, they won't be able to face explainers physically at all times.

True, there might be options similar to Zoom, or having holograms of the people participating in such an online lesson, but it will probably be extremely expensive, not to mention the logistical difficulty of coordinating over different time zones (now on different planets). So, information will need to be locally stored. And for that it'll need to be digitized in a smart way, like blocks, that can generate different kinds of explanations upon request. These blocks would also allow custom-suited of an explanation to the student. If there is some difficulty in the explanation, there need to be alternatives to that specific problematic step in the general path of understanding of a specific subject. Otherwise, the student could not complete the understanding process and would be stuck. We need to start preparing this toolkit, and have every explainer in the world contribute to it, in order to make this collection of explaining blocks and paths as broad and as efficient as possible.

The Process of Understanding

The process of understanding isn't directly taught. People are expected to discover their own personal version of it by themselves, with little or no instruction at all regarding "how to understand". Each of us has a miraculous inner mechanism that signals us when something is "understood". **But wait, how can one part of us signal another part that something has been successfully understood? Does this mean that part of us knew the-needed-to-be understood subject beforehand? How can that be? How can part of us know something before we've learned it?**

Apparently, this is how things work: when we get something, we *feel* we get it, and when we don't, we *also feel we didn't get it*. One option to explain this is that the part inside of us that is responsible to signal us that something has been successfully understood doesn't know *what* needs to be understood, just *how* it should be understood, in other words how it should look like, on the molecular level. It's like there are allowed connections, and not-allowed ones. Like a construction worker knows how 2 bricks should sit one on top of the other, without needing to know beforehand what the building looks like.

It's in these molecular, small connections between data pieces, that we will be working. Instead of listening to a 45 minutes lecture, that aims to build a whole long chain of understanding links, that resembles a tall building, we'll take the explanation step by step, brick by brick, one molecular connection after another, and break it down to the smallest pieces of info possible to convey, in order to increase the process' efficiency by creating more consecutive understanding-connections.

My Angle

I have been a private tutor for many years, and have conducted thousands of lessons. I know how it feels to be part of the understanding process of a subject. Many times I've felt that my best explanations were when I said nothing at all. At that moment the student was actually finishing the understanding process by himself, which is something amazing and often overlooked.

Afterall, explaining something is like standing on one hill, whereas the student stands on another, facing you. You start telling the story of how the subject is constructed on your side, and the student needs to build it on his side, by himself. If he doesn't understand how 2 pieces of information connect, you try a different angle, but the desired conclusion, or connection between the 2 pieces of info, remains the same.

That's why explanations need to be broken down to short pieces of info. And when one piece isn't understood, that means we need a different angle to create the desired molecular connection, which means another explanation angle. By breaking down the material to little consistent pieces in a known order, we can strive to get more explanations on the same topic from different explainers from all over the world. By focusing on a specific step in the explaining path, the goal of the needed explanation becomes clearer.

What is an Excellent Explanation?

The description of something as excellent is subjective. Two people can read the same book, or watch the same movie, and whereas one might feel uplifted as a result, the other might feel like it's the worst movie he has ever seen. That doesn't make the movie good or bad. The description of it as "excellent" or "worst ever" refers to *the connection* made between the movie and the viewer. And that's why there isn't such a

thing as a *good teacher* or a *good student*, rather a *good connection*. In parallel, there might not be such a thing as a universally-excellent explanation, unless we all unanimously agree upon it. That's the reason we need several explanations for the same needed understanding-step.

Understanding is Individual

Each and every one of us is unique. We each have our own set of definitions of the world, and whereas in many cases we're expected to conform in order to exist as a society, when we come to understanding something, we need to give full attention to our own individual needs. It's like running in a group: each and every one of us has his own pace. True, we sometimes can adapt ourselves to running with others, but we need to make sure that the pace suits us every step of the way.

It's very likely that most people will find a certain explanation path successful, and that would be great. But this project's strength is supposed to show itself the moment something appears to be not understood, and cater to the student's individual needs by offering a different angle, which might be the second common one. If that still won't achieve the goal of the student marking that step as understood, offer a third option, and a forth, until explanation options run out. And then, it's time to step out into the world, and issue a demand for another explanation, describing what was still not clear enough.

Existing platforms

That could be done by posting to a shared webpage, like

- **StackOverflow**, a platform that excels in presenting and receiving answers that could be rated by the users, to generate the perfect matching between a given answer to a question. Developers all over the world use it, and it's wonderful.
- **Reddit**, another place that shows great abilities in accumulating highly valuable content. Explanations there are already being posted to groups (e.g. ELI5 - "explain it like I'm 5 years old"), and could be used to present more explaining angles.
- **Youtube** videos.
- **ClubHouse** audio explanations.
- **Blogs**.
- **Any other online or offline resource.**

Hopefully, explainers will try to offer more angles on the issue, until the destination is reached and the understanding has been achieved. That explanation could then be added to the list of angles that would be offered to the next student, and so on.

Guidelines for an Excellent Explanation

There are many characteristics to an excellent explanation, and as mentioned earlier, the consideration of one as such is individual. But according to what most people perceive as an excellent explanation, we can try and set these guidelines:

1. **Needs to be short.** The more accurate - the better. 200 years ago people didn't have the luxury of Wifi. All of the content that needed to be conveyed within the writer's intention was printed in one book, which sometimes concluded a life's work, and as a result was very long. The process of understanding can seldom be performed in a one long session. Explanations need to cover the current needed step in the explanation path, and nothing more.

2. **Needs to be marked as excellent by at least one student.** An excellent explanation needs to have only one like. Yours.

As Explainers, What Do We Do?

- We should start discussing how the final platform should look like.
- We need to start collecting excellent explanations from the web, put them in a concise format, and ready them to be loaded to the-not-yet-developped platform.
- After that we could decide what would be the first explaining path that would be created, divide it into explaining steps, and then start putting in place the explanations we gathered, filling in any missing explanations.

But the most important thing we could do is to make this project known. Discouraged students all over the world deserve a reliable and efficient system with which they could understand things quickly and efficiently. A dynamic system that is focused on optimizing understanding.

And by the way, this explanation was too long.