GÖTEBORGS UNIVERSITET

STUDENT

0007-HOW

TENTAMEN

TIA301 Tentamen

Kurskod	--
Bedömningsform	DT
Starttid	27.09.2023 17:00
Sluttid	27.09.2023 19:00
Bedömningsfrist	--
PDF skapad	12.09.2024 13:43
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Welcome to examination!

This examination consists of open questions, sometimes referred to as 'essay questions'. It includes ***7 questions***, each rewarded with a maximum of 3 points. The examination is limited to ***2 hours.*** To pass it you need ***13 points*** (60%)

The grading will focus on the overall capability to explain and apply ideas. It will assess whether (1) answers are logically coherent, whether (2) they are grounded in readings, lectures, and discussions, and, when applicable, that (3) answers engage the key concepts of the course.

It could be worth noting that longer answers are not necessarily better answers, since long texts increase the risk of ending up with inconsistencies.

1 HT23 Question 1

Laura reads about actor network theory (ANT). She likes the idea of humans and things shaping social phenomena together. However, she is puzzled by the principle of ***generalized symmetry***. You need to help her. In you own words:

1. Explain how humans and material artefacts can be viewed/understood as identical, in terms of agency.
2. Describe how this principle is useful when analyzing how socio-technical systems (systems involving humans as well as technologies) behave and evolve.

Skriv in ditt svar här

1
With regards to generalized symmetry, it means that both humans and material artifacts have agency. They thereby have an impact in the network, in which they operate. Previously many believed that only humans had agency, and material artefacts were only passive. However these two are both operating in the same network and having agency.

2
This is useful when analyzing those systems because we shape technology and technology can shape us. An example of this is the algorithms used by social media companies, where the content is tailored to fit our needs. We shape that technology with our agency when we view the content we want to. At the same time the technology has agency to affect us, regarding the algorithms affecting what we are viewing. It not only change our behaviour, but also how we evolve, and what we like.

Ord: 142

Besvarad.

2 HT23 Question 2

Kevin has read about operand and operant resources. He has understood that an operand is a resource that can be acted upon to get things done. This resonates well with him, since he sees technologies as tools. However, he finds ***operant resources*** mysterious.

Explain to Kevin what an operant resource is and how it is different from an operand. Also, explain why digital artifacts are more often considered as operant resources.

Skriv in ditt svar här

The primary difference between the two is that operant recources can act without a input from something. Therefore it can initiate processes on its own. That is something which operand recources can't, due to them only being able to start a process when they're activated by something else.
Digital artifacts are considered operant resources because, like software, that they don't need something to initiate that process. It can start it by itself without the input of something else. These technologies therefore doesn't need us in a way, which an operand resource would.

Ord: 92

Besvarad.

3 HT23 Question 3

Simon is confused about the concept of ***affordances***. He knows it focuses attention on meanings rather than attributes of digital artifacts. His problem is that affordances are defined in *relation* to an observer or user. If an affordance is a relative thing, it comes out as useless to him.

What did Simon miss about affordances? Explain to him why an affordance, although being defined in relation to an observer, can be useful to explain general aspects of material artifacts.

Skriv in ditt svar här

Simon missed that affordances affords to do something, regardless of who the observer is. For instance a chair affords sitting in it, regardless of a person wants to sit in it or not. It is still something that the chair affords.

Furthermore, there are four primary affordances:
Malleability - the fact that we can shape things, even into new stuff.
Diversity - there are a great variety of the different things we can make out of it.
Scaleability - possible to increase from a smaller scale to a larger, for example with regards to the functions.
Transparency - a great overview of functions, example a data file where you can view the context.

By these types of affordances it therefore illustrates how both digital and material artifacts can be afforded. With regards to the material artifacts, a dinner table affords to be able to sit and have dinner around. But, as the aspect of malleability suggests, it can also change so that the dinnertable may be a place where we also play card games. It also affords that, because the affordance can be shaped. Altough the dinnertable still affords having dinner there, even though the persons don't do particulary that.

Ord: 200

Besvarad.

4 HT23 Question 4

Sara knows that ***reproducibility*** refers to the capability of producing copies of a digital artifact, without triggering any marginal cost. However, she is confused about the consequences of it. The lecture she is following argues that reproducibility tends to make markets more diverse, i.e., including more niche products/services.

Explain to Sara why the reproducibility of digital technology tends to produce markets with more diversity.

Skriv in ditt svar här

First of all reproducibility reduces the marginal cost for companies. For that reason it becomes easier for smaller businesses to sell more, because they doesn't have to spend more money on creating copies. Because of that reason, many smaller businesses can sell their digital products to a lesser cost.

Another aspect that is important to reproducibility and why markets becomes more diversified is because of the reach products can have. Because of the internet, more niche products can reach more people, allowing it to become a viable market. Thereby it enables more diversity.

Ord: 93

Besvarad.

5 HT23 Question 5

According to Jonathan Zittrain, ***generativity*** is found in “a technology’s overall capacity to produce unprompted [spontaneous] change driven by large, varied and uncoordinated audiences”. He also proposes that such generative capacity derives from four attributes of the technology.

What are the four attributes, and how do they make the technology generative?

Skriv in ditt svar här

The four attributes that Zittrain is talking about are these:
Ease of mastery - you don't need a long education to understand it.
Accessability - it is available to more people, and easy to pick up.
Capacity for leverage - has the potential to have a affect on things.
Adaptability - it can easily change over time.

The ease of mastery makes technology generative because more people can learn it without needing to delve in too deep into learning. For instance, a website is a type of generative technology that is fairly easy to understand fast. Accesability is also generative, like the example of the internet, it is available for almost the entire world. This makes it easier for people to use that generative technology. Capacity for leverage works like it can have a affect on something. An example of this is that a website has the potential to influence us and others. Lastly, adaptability, to use the previous example again, a website can change overtime.
Finally, all of these four attributes are important for understanding how technology becomes generative.

Ord: 180

Besvarad.

6 HT23 Question 6

Elisabeth tries to understand how the concept of ***boundary objects*** can be useful in the context of design. The idea that boundary objects can take on different meanings in different contexts, yet be easy to recognize and put into action by various designers is appealing to her. However, to fully understand Elisabeth needs an illustration.

Pick an example of a digital design boundary object. Use that example to explain to Elisabeth how a boundary objects can be *plastic* enough to adapt to local needs and constraints and, at the same time *robust* enough to maintain a common identity across sites.

Skriv in ditt svar här

Boundary object are primarly functioned in that they enable communication between social worlds. In Elisabeth's case, I will use a videogame to illustrate this matter. In an online videogame, you most likely don't really need to understand each others language to play the videogame. The game is therefore in a way a bridge between the different social worlds of the players.

With regards to the plasticity, a game needs to be able to change overtime. This happens with new downloadable content that becomes available for users. This ensures that the game will keep being interesting. However, it is important for the game to remain robust, otherwise people may be alienated, or feeling foreign to something they used to know. Altough if the game is too robust, and lacks of plasticity, the audience might lose interest in the game. To conclude, it is important to manage to balance these two for the boundary object to remain interesting and useful to it's users.

Ord: 161

Besvarad.

7 HT23 Question 7

Explain the basic idea behind ***ontological reversal*** and reflect on the consequences of ontological reversal for the design of digital systems.

Skriv in ditt svar här

To start of, ontological is about what is real. Traditionally this was only applied to physical matter, that was viewed as the more important. However, there has been a shift into viewing digital as what in fact is real in our daily lives. An example of this is videogames. Some people spend lots of hours in videogames on a regular basis. Those worlds become as real for those persons, as the "ordinary" world is. And by that, they also influence the "real world". Another example of this is how much time people spend on social medias. A space which also now could be viewed as reality, since we spend so much there, but also the affect it has on our culture.

So when designing digital systems it is important to keep in mind the effects these worlds can have on our "real world". Like with social media, and for instance the spread of fake news on these platforms. When designing the digital systems, these thing are important to keep in mind, that it has a tangible effect.

Ord: 177

Besvarad.