PC-builders – a social phenomenon of technologically oriented subculture during COVID-19 pandemic in XXI c.

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Abstract: The following paper describes PC-builders as a subculture in a scope of the sociological theory and presents the changing experience of this specific group during COVID-19 pandemic. It covers typical subculture identity shaping processes, its framing, cultural capital analysis, hierarchization, sociolect and rituals to verify that PC-building people have become the real subculture in all scientific senses and to reveal their changing experiences in COVID-19 pandemic. It bases on 30 individual interviews: 10 with PC-builders from the USA and Canada, 5 from Korea, 10 from Poland, 5 from France. The results show new cultural practices within the subculture born due to the COVID-19 quarantines, as well as caused by crucial tendencies happening currently on the hardware market and in hardware development between 2020–2021.

Keywords: PC, building, subculture, COVID 19, computer.

hen faced with buying a new desktop PC (personal computer), users fall into 2 basic groups and several internal variations inside each one of them. The first group buys shop-ready, pre-made, pre-assembled PC sets with a specific configuration. For some people representing this group, what matters is performance – they understand how PC and its individual components work. Such clients read about components, configurations, research the market and find a pre-constructed computer that meets their requirements and needs. Other representatives of the group buying pre-made configurations simply decide to get what is the most expensive – thinking it will be the best, because they do not

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know much about components and computers. Some buy the cheapest machines to cut on costs. The vast majority seems interested in the manufacturer's brand, e.g. they trust Asus, HP, Lenovo or a given store and choose pre-made constructions proposed by these companies [IDI; Nudelman IDC 2017–2019]. Sometimes it is even the appearance that counts or a fact that friends use the same PC. Therefore, all users who buy pre-made computers can be classified as casual buyers – even if they use a computer for professional work, even if they understand the theory of components, they decide to get a finished, whole, pre-made machine built by the manufacturers or a store of their choice.

The second group of buyers are people who buy all the necessary components themselves, set their own configuration, choose every component brand, cooling solution, case aesthetics etc. Later, they either outsource the construction of such a PC to a store/professional service, or – they build the unit themselves. Since building a PC became a specific kind of art, but also a cultural phenomenon with its own, autonomous culture, today we may observe a birth if not the golden age of a subculture of PC-builders.

The PC-building subculture develops its own identity, sociolect, hierarchy, cultural practices as well as concepts consolidating members and excluding others as "randoms" or sometimes even enemies [IDI]. Pandemic of COVID-19 in 2019, 2020 and 2021 surprisingly – even in face of the shortage of semiconduct-ors resulting in lack of GPUs (graphic cards) and assumed economic decline of households – shown that PC-building market remained strong or even grown. Some people build their high-end machines for entertainment at home, some upgrade old computers out of necessity for work when the office-located, more powerful rigs are not available during home office quarantines [Linus Tech Tips 2021].

I personally fall into both groups at the same time since I am using a very powerful computer for my three jobs (scientific work, computer graphic design, mobile games development), for my hobbies (music recording and drawing), but I have been also building PC machines for my family, my friends and some people commercially. This inspired me to carry out a research based on 30 interviews with the whole PC-builders community worldwide, which I communicate with. I spoke to builders from the USA, from Poland, from France and from Korea since the situation on the market is basically the same everywhere, the same companies monopolized components as well as prices, in vast majority do not have their local variations and current tendencies/fashions within the PC-building turn out to be rather global than local [IDI]. This paper is a result of the named research.

Scientific goals and structure of the paper

As mentioned, the following paper describes PC-builders as a subculture in a scope of the sociological theory and presents the changing experience of this specific group during COVID-19 pandemic. It starts with presentation of the theoretical scopes of sociology of subcultures, fandoms, framing and cultural capital practices of groups "on the border of society". It is continued with an empirical study based on 30 individual, video interviews [IDI]: 10 with builders from the USA & Canada, 5 from Korea, 10 from Poland, 5 from France. It covers topics such as subculture identity importance, framing processes of "us" and "others/enemies", cultural capital analysis, hierarchization, sociolect and rituals to verify that PC-building people have become the real modern subculture in scientific terms as they create their consistent group identity regardless of the global, Internet base interactions, as well as a whole system of rituals, alternative culture capital practices supported by a strong subculture hierarchy and general opposition to the mainstream PC market but without being a deviant, excluded part of the society. They are rather a subculture of specialists and professionalized presumption rather a subculture of contestation in strict terms.

Social theory of subcultures and fandoms

To describe any subculture from a sociological point of view, we need to start from theories of subcultures, social movements and fandoms. In PC-building environment, they turn out to be equally important as in any other locally defined group inside of the society and that is why we should understand PC-builders an autonomous, fully autonomous subculture.

Sociology of subcultures – between classical and new orientations

Sociology of subcultures originates in Chicago and Birmingham, which formed two classical schools addressing subcultures within the sociological scope (Williams 2007; Bennett 2011; Nwalozie, 2015). Starting in 1920s up till 1950s, Chicago School developed an ethnographic method of studying different deviant groups within the society. Scholars such as Ernest Burgess, Robert Park, Henry McKay, Clifford Shaw, Edwin Sutherland and Donald Cressey proposed treating society as a harmonious organism – a cooperating set of social groups, which when malfunction, generate tensions and those tensions finally lead to some individuals forming alternative, deviant groups and subcultures (Anderson, 2014; Williams, 2007). In this approach, even if subculture members do not "break away" due to their personal character, problems or dysfunctions, they are a product of structural, hidden social problems of the whole society so they form a culture of rebels, alternative "organisms" within the existing, failed system. They usually contest, they go underground and represent specific deviation on the borders of society. The main achievement of Chicago School was therefore anthropological, ethnographic study approach of such groups, while it was later criticized for its controversial racial and sex based subjects for studies as well as "deviant" behavioral fixation (Williams, 2007; Bennett, 2011; Nwalozie, 2015).

Birmingham school originating in 1950s up till late 1990s and represented by Richard Hoggart, Raymond Williams or Dick Hebdige, built upon foundation provided by Chicago School and further concentrated on deviant groups with a more social class oriented approach. They studied lower class and middle class youth rebellion and forms of opposing the system just like Chicago School did with even deeper commitment (Anderson, 2014; Williams, 2007). This school basically claimed that subcultures come from social class divisions and identities, they contest cultural dominance and oppression of the system controlled by dominating culture of elites and eventually – they create subcultures – again as a form of rebellion, contestation but also forming alternative rituals, internal culture and behaviors allowing members to replace mainstream cultural practices (Anderson, 2014; Williams, 2007). The achievement of Birmingham School highlighted those cultural practices while it was even more criticized by its limited, class, rebel and deviation orientation just like Chicago School before (Williams, 2007; Bennett, 2011; Nwalozie, 2015).

In early 2000s, scholars realized that subcultures have changed. They do not base on rebellion anymore, they are not stable and consistent monoliths of class, racial or any minority experience. Connections become fragmented, global and diffused. People do not attach themselves so firmly to the rebellion movements but rather search for group identities within similar, mind-alike circles of individuals forming temporary groups where they can practice cultural capital interactions between each other and within the borders of culture "slice" they are interested in. That is how a Post-Subcultural School emerged represented by Andy Bennett (2011), Nwaolzie (2015) or Paul Hodkinson (2016). The importance they put on identity shaping processes and freedom of choice stays crucial today, however, it sometimes fails to recognize authenticity of even short-term commitment of people towards specific subcultures and groups of consumers.

All in all, the founding schools of sociology of subcultures deserve recognition, deserve praise for their ethnographic approach in applied, empirical research as well as for their correct recognition of main dimensions such as identity, hierarchy, cultural consumption and ritualization but they do not offer adequate tools for understanding the modern, non-opposition subcultures with even futuristic characteristics like PC-building subculture.

Sociology of fandoms - to embrace the globalized new

This is when studies of culture and consumer fandoms emerged due to the recognition of limitations of the classical subculture analysis. Theoreticians such as John Fiske (1992) or Matt Hills (2002) drawn scopes from social psychology, classical subculture studies, anthropological research as well as actor-network theory. They stressed how global Internet communication, global branding, unification of markets and pop culture consumption within practices of cultural capital create modern groups based on identity, rituals, cultural exchange and hierarchies alternative to the dominating culture concepts (Fiske, 1992; Hills, 2002; Harrington, Bielby, Denise, 2007).

Other researchers – similar to the classical sociology of subcultures – concentrated on creation of identities of members of the new subcultures, fandoms and product-identity based groups rather than rebel, opposition and contestation based classical ones (Fiske, 1992; Jenkins, 1992; Hills, 2002). Those processes of identity creation and how it corresponds with subculture or fandom interactions and sense production were object of interest of both classical subculture studies as well as fandom studies for many years and I find them extremely important for describing modern subcultures, which show classical subcultures phenomena while not being rebel/opposition oriented similarly to fandoms. PC-building subculture falls exactly within this scope of identity shaping groups so using more appropriate studying approach seems crucial.

Framing – who we are for the world, who are our enemies, what do we do and why

Framing is a classical, sociological term introduced by Erving Goffman. Although, it is not commonly used in subculture studies nor fandom studies, it describes the whole social movement's, organization's or any coherent group's discourse, which goes to the media and to the generalized society as a self-definition of the group, demands recognition and which becomes important for the subculture creation. Framing starts by condensing the experiences of all the individuals within the group to create the commonly shared consciousness and identity. Then discourse of the group is born and it clearly defines who we are, what is important to us and what is not, what is the center of attention, who are our adversaries, on what conditions, what are demands (in terms of social movements) or what is the sense of belonging (in terms of subculture) (Goffman, 2010; 1974).

The sense of framing lies in both cementing the bonds and unity between the group by constantly reigniting the idea of enemies or sense of belonging or fight to be waged, goals to be achieved, as well as an external message to all the "others" (in sociological terms), who are not members of the group but they learn to recognize it. PC-building subculture has its media – Internet. They do not operate on traditional platforms such as TV or newspapers and that is where the framing actually happens. All the social portals groups, public and specialized forums, technology stores in comments sections – the areas of subculture activity are wide. They create their own groups, there are also opinion leaders running YouTube channels about technology and PC-buildings (LTT, Bitwit etc.).

In sociology of subcultures, since framing was originally used for social movements, the theoreticians stress that for subcultures, parts of their substantial framing include not only messages to the media but things like a dressing code, the whole visual aspect of being a member, using specific brands and not using the other ones, which comes from specific subculture ideologies and such (Hebdige, 1979; Weinstein, 2000).

Social and cultural capital theories of subcultures and fandoms

Theoreticians of fandoms spotted that subcultures and fandoms create their own cultural capital, cultural practices and specific ways of gaining the social capital in opposition to the dominant, institutionalized culture of the common society (Bourdieu, 1993; Fiske, 1992; Hebdige, 1979). From a different point of view, a classical work by Sarah Thornton coped with a complex network of rituals and hierarchies created by dance club subcultures so they could take part in cultural capitalization of practices alternative to the dominating culture of the elites (1996). Both those orientations stressed that interaction between members and subculture rules serve a purpose of building subculture cultural capital and to shape members according with it. It connects with identity based on the shared capital of the whole culture but also creates divisions and hierarchy between members who display a different level of understanding and refinement of the subculture cultural capital. This capital serves as the main matrix of the whole group becoming sacrum responsible for different complicated rituals. Since members of subculture, who may be excluded by the main, dominating and mainstream culture usually find their alternative cultural capital harbor in subcultures, which serve as an alternative to the system, with time, they reproduce hierarchization and stratification practices like mainstream society does. They operate on cultural capital mostly or on the encyclopedic knowledge aka the culture of expertise (hardware knowledge in this case) (Bourdieu, 1993; Fiske, 1992; Hebdige, 1979; Thornton, 1996).

Social capital of the subculture also institutionalizes the specific sociolect as another form of stratification – a language typical for the subculture, which allows excluding outsiders and capitalizing the own cultural competences within the group by using and understanding it more than others, which creates stratification and hierarchy in addition to the everyday rituals, expertise, taste and subculture credo.

PC-building as a social phenomenon in COVID-19 pandemic – empirical research results

Methodology and global subculture studying challenges

The research project presented in following paper bases on 30 individual interviews: 10 with builders from the USA & Canada, 5 from Korea, 10 from Poland, 5 from France. The PC-building community uses worldwide channels such as Reddit, Discord, Twitch and Youtube to communicate and share their experiences in English. The local language channels are also present but irrelevant because the PC-building world is the global one [IDI]. Getting in contact with minor members as well as "global stars" becomes surprisingly simple so knowing the internal channels of communication turned out sufficient for inviting the subculture members to participate in video interviews. Being a constantly communicative "specialist" seems very important for their identity. As Zardas says (I created alternative nicks for the sake of this research even though PC-builders usually already use nicks, which are famous and recognizable within the subculture): "[...] you have to keep talking to the folks. You have to stay on track but you can't be a princess on a top of the mountain just because you have 20 000 subs. You lose track (stop being active specialist commenting matters within the community) and you die". Coco goes even further: "Communicating, being visible and active is everything. You can't build on your own at home. We build together. We build and we share. I gladly share my experiences so we are heard".

The interviews sample saturation appeared almost instantly no matter what I asked about because experiences turned out to be literally same about the faced reality and ways, in which the PC-building subculture works in such different countries. It seems that there are no substantial cultural differences in PC-building subculture. What I mean is that even if, of course, we may find differences in forms of communicating, the outer, performative part of rituals between members of the subculture, the core behind basic processes and faced reality remains the same. For instance, in more hierarchical cultures such as Asia, the hierarchy between members may be more ritualized than in Europe or the USA (Aia claimed that: "[...] you need to remember and call your seniors with a proper honorific (superiority honorifics in Korea and Japan), you need to treat them with respect online even if they're saying a total bullshit or you have more experience with a socket") but it is a more general tendency of the culture itself, not the PCbuilders subculture where the hierarchization remains the same, it is equally important, equally strong for all the PC builders globally. Mixio points out: "The computer is just a machine. A better GPU is a better GPU. You know what you do or you don't. Every builder may be judged through his work". Shasha adds "It doesn't matter who built it and where - the machine speaks for itself. Fashion like

RGB rule everywhere when they appear. A computer from the USA, Germany or Korea has the same RGB, the same case, the same components. It costs the same, hardware availability is the same. [...] Well... the reviews are available for everyone. You just open up my channel and here it is. Components run specific FPS and thermals. It's all there." Kortox addressed lack of cultural difference openly: "It's not that some countries cable manage better, build cleaner rigs or other shit. It's not that builders in France argue more than in the USA. It's about people. A Korean may be more polite when roasting your set-up than a dude from Texas but the rig sucks anyway. Both the guy from Texas and the Korean fella know it and they will tell you because that matters. You will be judged for it. Your rig says who you are as a builder. If someone doesn't disclose he's a Korean or something, you wouldn't recognize where he comes from [...]. Yeah, randoms from Korea do not differ much USA fellas either (people buying pre-made machines outside of the subculture). [...] Experience of the PC-builder stays the same, man. It's more if you're a builder or a random. Not where you build". The best summary is provided by Yuni "Color of the build matters, not color of your skin." Even external pressure seems the same. Kortox suggested: "We are seen as freaks. All of us. People do not understand. If you're an IT guy you will be a no-life, a geek, a weirdo, a nerd. There's no helping it and we don't give a fuck. [...] No one has it harder. It's same all around the world."

In the end, the interviews shown that the PC-building subculture may be fully global without national borders nor cultural differences so the generalized conclusions may be drawn safely. However, the results of the study show new cultural practices within the subculture, which were born due to the COVID-19 quarantines – especially semiconductors shortage in 2019–2021.

Customizing as the goal itself – shaping identity of the PC-builder

Buy off the shelf? Yo, I roll my own, customized specs are the ultimate goal¹.

Having the customized hardware specification is indeed the goal and the value itself within the PC-building subculture. It stands as the most visible, first-noticed aspect differentiating the group from everyone else and from the "casual" users called pejoratively "randoms", "noobies" or along those lines. Infra states:

¹ Quote comes from a song by Chris Blundell and Gavin Harrison called "The Ultimate PC". It was used as an OST for the "PC Building Simulator" game – a game allowing the subculture building PCs virtually in an app... run on the real life ones. Even though it seems like "Inception" movie (building an artificial PC on the real PC in a game), many members of the subculture both laugh from this game a lot and sometimes play it for fun in hiding. This game is generally considered embarrassing within the subculture but still – many play it in hiding, not speaking about it.

"PC-building is life. Nothing less. It's who I am. I can't imagine myself without it. I can't imagine having a fixed specs machine I did not choose on my own!". The whole process of customizing and assembling with own hands seem to be more valuable for the members of the subculture even if the hardware they choose is actually the same as pre-built machines. According to Kortox: "It's better building on your own. Screwing everything down with your own hands – they joy makes everything worth it. Randoms will never understand". Wolf adds: "It's ok if I finish with the same parts as integrators (professionals choosing hardware for premade machines from main brands). I don't fucking care. It just means that they know what they're doing. I still prefer building it on my own. I always do it – not only computers but I build everything whenever I can."

There is much more to what PC-builders mean by "customizing specs" than choosing main hardware such as motherboard, computing processor (CPU), graphic card (GPU), RAM, mass storage and power supply. There are cables – their types, coating, colors, there are RGBs in different colors, modes etc., there are custom cases in the end – with commissioned graphics, additions, ventilation or panels or things not available on the market even. Choosing from all of those is the whole fun of prosumption for PC-builders. Mm1LF explains: "It's about those small details. A custom panel, custom lights. Own engraving on the panel, the cables matching your very own taste... I can't compare it to anything else". Yoo simply shoots: "No standard machine can give it to me. If I won't take things in my own hands then I end up with the most random, plain and boring rig there is on this whole planet. No ghost in the machine (no soul in the product)".

If prosumption theoreticians had had groups like PC-builders for study back then when the whole theory of presumption emerged in early 2000s, they would have been delighted. PC-building in form after 2010 is like an operatic aria and tribute to presumption not only by practice but by the basic design of the whole branch of market/products, which distinguishes it from other market areas. What I mean here is that the idea of prlsumption – aka constructing the whole, complete machine from thousands of matching components giving different performance and look designs is not only the idea of PC-builders but of all the components manufacturers. PC pre-built brands and stores basically just do the work of PC-building in the name of the final consumer while PC-builders do it themselves. There is simply no other option in this field and PC-builders embrace it at its fullest.

In this area, we may divide them into a couple of groups the same as we divided general PC users at the beginning of the paper. PC-builders value different things and difference experiences of the building more:

a. **performance oriented ones [20% of IDIs]** – they care about performance of the whole setup and nothing more, usually they prefer "sleek,

elegant" looking builds with small or no amounts of RGB lighting inside of the case, no "aggressive" look of the whole PC meaning purely black or white, sometimes white+black cases and components, no "fancy", no "obnoxious" solutions – just pure performance and elegance. The interviewed builders seem to find pride in the perceived "elegance" and minimalism of the build thinking it makes them better and more tasteful than "common PC" builders.

- b. look oriented ones [~ 37% of IDIs] "style over substance" is their motto. They naturally care about performance as any PC-builder because it seems automatically included but they find most fun in designing the build as a physical piece of art. It may be "aggressive", obvious, "obnoxious" or it may fall within many types of aesthetics. It does not matter much since not everyone needs to have thousands of RGBs inside of their case. A point is that visuals become the main source of satisfaction from PC-building for this type of builders.
- c. **mixed, balanced approach [~ 43% of IDIs]** those PC-builders value performance and ability of customizing the look of the machine equally. There is not much more to say here because they are the majority of the interviewed group. Of course, it does not reflect the real frequencies because the study was qualitative, not quantitative but it shows the main tendencies with their potential importance.

Leaving all those internal preferences aside, building a PC on your own is an identity-shaping phenomena for the members of the subculture, which actually makes it possible to consider them as subculture at all. Soldano states strongly: "If you ask directly, then yes - it is my identity and the source of my self-esteem in life. Without it I would be nobody. I didn't match the other kids, I was always in my own world. It gave me purpose. And money (laugh)". Other member of the subculture adds: "Being a part of our amazing, own world. It feels like family. Even if we communicate through monitors, we do not see each other, we're still a family. PC-building is what connects us. [...] Sometimes we show up just to share a bad day at work too, yes". This is when group identity emerges and individuals become a community with a defined identity. Members of the subculture build their identity and the group identity of the whole subculture through partaking in the PC-building phenomena not on their own but as a group, which not only serves their PC-world related needs. If it becomes a family, it becomes a subculture - a virtual one, a global one without direct interactions but not less real than any other. Doing things on your own, being a professional prosumer is an institutionalized goal and a part of the identity, which gives a basis for any other interactions, hierarchization and subculture rituals. It turns out that a subculture

may be built around anything – not only on opposition and rebel like old theories used to state. However, the group identity-shaping of some sort stays crucial. In this light, the post-subculture theories have some correct feelings on the new forms emerging, no need for rebellion for subcultures anymore and positive, casual hobbies identity membership but it is not that the group identities and authentic, long term identities disappear at all.

Framing - friends and adversaries, "us" and "others"

In their framing, PC-building subculture defines both who they are and who their enemies are. Enemies include both "casual users" choosing pre-build PCs, who according to Zordon: "[...] mindlessly buy those shitty machines adding up to the degradation of the whole market"; and stores/popular pre-build brands: "[...] Big market players destroy the market. AMD, Intel, Nvidia create hardware, Asus makes motherboards and that's what they should do. They shouldn't build ASUS rigs. What the fuck? Everyone may choose components on their own. If not, you may go to the store and someone does it for you but not a single PC from Lenovo, HP, Asus or others should ever exist [...]". The subculture perceives themselves as true professionals taking things in their own hands and getting much more value for the money. They see themselves as rational, smart PC users in opposition to down looked casual buyers. Verdi claims: "We're just doing the only thing, which makes sense. Only idiot gets those shitty rigs from stores. They're expensive trash with crap inside of them. Read a short article and you know it all. A man with a brain will not buy them. Sadly, typical users are idiots so it all goes on".

Sometimes Apple (Mac) enthusiasts are considered the opponents too – as well as Apple brand itself – for their love of pre-built configuration, limiting upgrades, repair possibilities and customization options as well as high pricing with much less powerful raw performance of components. Due to that, a specific game and ritual emerged within PC-building community – it may be called a game to outcompete Apple for the same money. PC-builders often boast publicly how much powerful rigs and machines they designed for the same budget that Apple computers cost or for much less even: "Apple is for pussies. Let's not brag about it but I am able to build a twice more powerful PC for the same money as Apple serves to their culstists" – says one of my interlocutors.

In general, it is true. PC-builders do not over exaggerate thing here. An important thing is that it becomes a goal itself to outcompete Apple in the PC-building subculture, to publicly hate and criticize Apple on this regard using public forums and social media online. Of course, usually Apple enthusiasts do not join PC enthusiasts groups and vice versa but many specific game fandoms, neut-

ral groups about technology etc. are battlefields between Apple users and PCbuilding subculture [IDI, own social media groups analysis on Facebook – anonymized groups for the sake of privacy and safety of fandoms]. Mouse has interesting observations in this regard: "Sometimes... Sometimes I think it is already like a game. You hate us, we hate you. We can't live without it. A fact that Apple sucks is one thing but those arguments and flamewars are more for the sake of some crazy pleasure we all draw from them".

If console gamers vs PC gamers have been fighting for years over quality and "correct" platform for playing [IDI], then new adversaries such as scalpers of GPUs in PC world and scalpers of consoles in times of pandemic somewhat united those two groups against the common enemy for the first time ever . Infra explains: "It's so funny. Now PC-gamers and console gamers speak with the same voice for the first time ever! Enemies against the common enemy makes us friends!". It seems to be visible both in discussions, conversations online where both console users and PC builders started having more compassion and understanding for the experience of each other [IDI, own social media groups analysis on Facebook – anonymized groups for the sake of privacy and safety of fandoms]. It is worth mentioning that "normies", "randoms", "noobs" aka people buying the pre-configured machines off the shelves are still considered the enemies of the PC builders: "[...] here nothing changed. It will never change. People buying crap potato-machines from big brands will always destroy the market" – summarizes Zordon.

To sum it up, adversaries, the idea of "us" versus "others" remains but it is not as crucial and as strong as in classical subcultures living only if the rebellion lives. The famous saying "Punk has died" partly explains how old subcultures through the scope of Chicago and Birmingham theories faded away and the new forms emerged. Those forms may show a lot of characteristics stressed by the post-subculture theories branch but both social identity and a clear distinction between allies and enemies remain important even for the modern, contemporary and futuristic subcultures.

Cultural capital and alternative life success definitions

Being a member of the PC-building subculture requires a lot of very specialized, cultural competences visible only inside of this particular group. There is a massive, technological knowledge (purely objective one) with its specific language, there is a second-level technical knowledge where raw specs and manufacturer commercials are tested and re-labelled by the subculture members and leaders of opinion. Then a specific sociolect emerges to speak of them – like "potato components/potato PC" (weak quality ones, specific brands etc.), "rattlers/wind/ rammers" (fans ecosystem) etc. In the end, there are also institutionalized ways of discussing technology, which automatically spark admiration, acceptance or make

someone a laughing stock. Mitra concludes: "You see at the first glance if someone is a noob or a pro. Opinions, language, how the whole post looks like. You see it, don't you?"

Subculture of PC-builders bases on the culture of expertise. Being a technological expert builds cultural capital, institutionalizes a specific system of taste and forms a hierarchy within the group (Hills 2002; Fiske 1992). Some senior members will accept a discussion only with another senior member even if they are technically wrong and the "noobie" may be right or the matter itself is irrelevant but it falls within the scope of this institutionalized taste so it is rather a part of symbolical, culture – not objective effects of using this or that component, setup etc. Zordon claims: "You do not discuss with Skall. If he's right, he's right. If he's wrong, he's also right. But seriously, he's been doing it forever, seen all, done all. He's like a famous trendsetter (laughing). He dresses in a bag and dressing in a bag becomes fashion".

Since PC-builders are considered "nerds" by the common society, they often are excluded or exclude themselves from peers already in school, lock themselves with their computers, play games, are passionate about technical specs, which no one else is interested with, then they needs to build their self-worth and own social and cultural capital in accordance to what they do – aka – being experts, gaining admiration online in eyes of other people doing the same or just in need of a PC, falling into some technologic troubles etc. Fuzi explains: "As a brat I wasn't accepted because I used to spend more times messing up with my radio or phone than playing with others. Then computers appeared and it was heaven. [...] Now I am respected for my work, everything changed."

In result, very often their hobby, alternative cultural and social capital creation becomes professionalized, it turns into money-earning profession in adultery. The life of adult PC-builders "normalizes" in common society terms, they find a girl/wife, have kids, buy homes, cars, earn for their living, have friends and social life transforming their exclusion into advantage, transgressing from "nerds" to "modern, working professionals" in a very modern and important field. Gigxo explains: "I have a wife, I have two lovely daughters, a dog, a car, a nice place to live. I am a normal guy. Back then it was just a hobby. Now it is what I do for a living. I earn money on what I love. Can a job be any better?". This transition and "road" of cultural and social capital seems very important within the subculture, it is somewhat an equivalent to the social development, growing up and social success archetypes institutionalized in the dominant culture. Kortex boasts: "Look at them – what they're doing? Some boring stuff for a bowl of rice. Slaves to corporations. They laughed at me and now I could be their boss. I did it with my own hands and with this nerdy tech obsession they criticize". Thus, PC-building subculture indeed reflects and alternate social culture hierarchization, processes and concepts present in the dominant culture of common folk so it may be considered a fully pledged subculture in scientific terms.

Rituals and hierarchy

As already mentioned, there are different rituals within the PC-building subculture. Those personally performed on the machine: "cable management", installing GPUs and RGB and the official, institutionalized ones: gaming, tech and PC events and expo. Shimi explains: "Expo is like a festival. You can see the tech, touch it with your own hands, talk to the people responsible for everything. Be it gaming, hardware – it doesn't matter. I love visiting them all." Zumi simply states: "It's Christmas!".

Currently, the events were almost all cancelled in COVID-19 pandemic so it turns out that PC-builders had to find some substitutes. According to my interlocutors, all the YouTube PC-building channels, Twitch streams, Facebook streams etc. live through their golden time in pandemic - interest in them boomed – they used to be relatively popular earlier but now the whole interest in institutional events, shows and festivities of the subculture turned towards streaming, global opinion leaders. My own analysis of the most popular YouTubers with global esteem and recognition [anonymized out of necessity and by request of one of YouTubers but there are only a couple of them] supports statements from interviews - content creators make much more videos and streams right now, earn more money on product placement and stores/components advertisements to compensate for the lack of events they normally attend as public opinion leaders within the subculture. They all try to not be subjective and just use official product placement or advertisement segments not related to the topic of their videos so they remain objective in their assessments and this is the most important because the expertise based subculture is extremely sensitive about biased/market/brandrelated content [Opinion Leader IDIs]. Sadly, I am not allowed to quote any interlocutors from this group nor give any specific amounts and details due to their professional contracts with different platforms and other limitations of disclosure.

Cable management and RGB approach became a next cultural phenomena important for the whole subculture. Somewhere between 2005 and 2015, manufacturers left solid case side panels in favor of transparent plastic/glass ones to show the whole components on the chassis. Due to that, lighting them up became popular and LED technology resulted in a fashion of placing RGB, colorful systems inside of one's PC. Approach towards this remains ambiguous – some cannot imagine a build without RGB, some hate it, some prefer the whole rainbow of blinking colors, some like slowly pulsating, mono-color setups. It all becomes a part of symbolical fight inside of the subculture itself, different groups create different hierarchies based on this and it is where typical dominant culture mechanisms of taste, higher class minimalism vs obnoxious behaviors and baroque style aesthetics collide with each other. Soldano explains: "You may love RGB, you may hate RGB but you can't be neutral and you can't ignore it (laughs)".

At the same time, cable management being just striping cables together in bonds and leading them geometrically nice inside of the case or doing the same on the desk itself, became a symbolical area of rivalry and taste/cultural capital display inside of the subculture. There are whole guides, articles, comments, livestreams in length of hours discussing this specific part of PC-building experience. Kortox makes it unconsciously clear: "And cable management... Because will cable manage, won't you?" This simple statement says it all. Other interviews are the same but cable management became a ritual itself and it is here to stay. It is also reflected on the market because majority of the manufacturers started offering their base components in RGB versions, in better "cable management ready" versions etc. Money follows habits and habits follow the smartly designed fashions and trends created by capital owning manufacturers inside of the every subculture, fandom and popular, common folk culture as well. It is not different in PCbuilding.

GPU (graphic card) mounting – such a small, trivial action - also has a lot of symbolical significance for the PC-builders. Shimi explains: "It's a special feeling. The beautiful strawberry on a top of the cake. You push it in, brackets close and... it's done. A mystical experience. Now turn the beast on!" It may be partly because graphic card mounting became last step in PC-building due to technical reasons but the temptation of doing it earlier "magically" appears. Zuko says: "New builders always want to do it as fast as possible (laughs). It's understandable but it's wrong. It should be done last for practical reasons but the symbolism adds up to the experience (laughs). Remember that meme from the Lord of the Rings? (theatrically) One does not simply mount a GPU (laughs)".

Brands and hardware manufacturers competitions also became the ritualtriggers themselves – like AMD vs Intel endless fight with supporters of both brands forming small, symbolical war "armies" between PC-builders. Some have their personal beliefs, habits and use only one brand hating the other one. This hating process becomes a ritual. Others have a totally opposite opinion and worship/hate the opposite brand. Kortox only uses AMD ("because they kick ass, Ryzen is for royalty") while Rixon "would never consider building a "team red" PC (because) – it's lame and poser".

There are also more generalized trends, which divide people into "culturally capable" and "inferior". PC-builders do not use those words literally, they rather speak of professionalism, real knowledge and consciousness, following times and understanding the fast paced change or – most sociologically – they use a word "taste" - (Yuki: those cables are just a bad taste, everyone knows that!). In reality, it is just a normal, subculture hierarchization and structuration of members reflecting the standard practices within dominating culture but this time inside of the subculture like subculture rituals theoreticians brought earlier claim. For instance, for many years it was a symbolical shame using AMD CPUs - they were cheaper, always a bit worse than Intel or at least considered like that because the raw comparison remains a more problematic topic (AMD used to shine in servers and some professional work while Intel shined in games and other areas of professional work than AMD). Now, it has just changed so "nobility uses AMD and the rest builds on Intel" like Kortox and Rixon said. Following such trends becomes a sing of cultural capital within the subculture, a sign of cultural taste and hierarchy - the actual results in programs, games etc. vary depending on much more factors than CPU brand/raw power but even if we limit things to the CPU performance, it also varies from app to app.

Last, contemporary and a bit additional ritual, which emerged due to the COVID-19 pandemic only, is "COVID PC"-building. PC-builders reuse the same parts to build different machines just for fun in private or for streams. There is a crisis and shortage of GPUs and other components and the prices of newest GPUs went extremely high. In such conditions, people may buy 10 relatively cheap cases, visual parts, cooling solutions, motherboards and such and then – build a different PC every week using the same GPU and CPU. Disassembling and reassembling turns out to be fun itself for PC-builders – for the sake of building itself [IDI]. Additionally, such practice allows testing the same base parts like CPU/GPU with different setups – something not that widely popular previously (before COVID-19 pandemic). Of course, professional opinion leaders, You-Tubers, professional service points and businesses had opportunity of try "everything with everything" but more individual and "modest" PC-builders did not do it on a daily basis. Now it seems to have changed because of boredom and quarantines so it becomes the new, temporary ritual for the whole subculture.

Sociolect

PC-building subculture sociolect is usually a very technical one but "labels" for different things are also created. Some famous PC-builders as leaders of opinion design their own terms on specific building solutions, which spread globally through the whole community. It may be the "burrito cabling" (specific rolling and layering named like this by Zatos), "team red" vs "team green" (Radeon vs Nvidia), "blue machine" vs "red machine" (Intel vs AMD). They all have their meanings, they become popular, change with time and locally limited circles of people in the subculture. The COVID-19 pandemic created new sociolect and new terms, such as "COVID PC" mentioned earlier (usually a gaming machine built in times of GPU shortage and quarantine to cut costs and provide home entertainment). There is also a "STADIA build or Geforce Now Build" – a build with minimum specs and high connectivity to support cloud game streaming, which exploded this winter with a release of Cyberpunk 2077 – this solution allows playing hardware intensive and demanding games in the cloud and streaming them live to the computer.

Since sociolect both unites and divides, the pejorative words describing new members of the community or "converted critics" were designed. Many gaming community and PC-building community enemies before pandemic "converted" due to quarantines right now or they simply need help of PC-builders so sometimes they are called "grasshoppers". The new members, who started PC-building right now and "play experts" may be called the "yellow ducks" or otherwise depending on the cultural area [IDI]. There are variations between Asia and Europe or USA but the general tendency remains the same – only terms change.

According to my interlocutors, the "creative" part of the sociolect of the whole community has been expanding and developing in COVID-19 pandemic [IDI]. Maybe people do it because they are bored, maybe the phenomenon like one described a paragraph above provoke boosted creativity in sociolect area. It remains unknown but the fact of expanding available terms, creative labels and codes serves even further unification of the people who are already insiders and stronger exclusion of the outsiders. As mentioned by social theory before – sociolect is an autonomous part of hierarchization, ritualization and culture capitalization of membership of the subculture and if a subculture creates its sociolect, it may be considered mature enough to consider it as such.

Conclusion

It turns out that the PC-building subculture may be understood as a fully-fledged, modern identity and indirect interaction based subculture based on technological field in current times because it reveals the internal processes typical for other subculture studies that was a hypothesis to prove. Though it does not fall within scope of Chicago and Birmingham Schools, it shows the main tendencies drawn even by those proto-schools as well as tendencies stressed by post-subcultures school – however – with a strong group identity. The pandemic boosted both online and personal activities in privacy of PC-builders' homes since they do not actually need working from the office. PC builder's businesses also thrived due to the massive amounts of people worldwide locked inside of their apartments and having needs for new computers or discovering the need of contacting PC-builders to troubleshoot, find alternative solutions in times of GPUs and semiconductors shortages.

Different effects of COVID-19 pandemics changed lives and typical practices within the subculture, which normally remains surprisingly consistent regardless of cultures and geographical location of users. The new sociolect emerged, new adversaries such as GPU/console scalpers appeared in addition to the typical animosities between PC gamers and console gamers. It somehow united the two groups for the first time. Classical rituals within the subculture – aka institutionalized events and festivities have been substituted by online activities, steams, meeting and massive success of already existing opinion leader channels online. In addition, new physical practices appeared – such as disassembling the PCs and rebuilding them many times for fun and practice because of quarantines and components shortages or creating not only the most hardware powerful machines like it used be before but rather building the "COVID PCs" – smartly designed specs from components available. Cable management, GPU installation rituals and all remained the same – just the new forms of rituals added up to the already vast palette of the existing ones.

The forms of alternate social and cultural capital creation and usages remained basically the same – based on expertise in technological world usually considered as "nerdy" or "geeky" by dominant culture. However, the changing situation and need of PCs, upgrades, home office equipment and such offered a possibility of improving the image of PC builders from some excluded "nerds" to the professionals they consider themselves to be even within the circles of common folk and dominant culture. PC-builders have ambivalent feelings about those suddenly changing their stance or getting interested in PC building while posing as specialists recently, due to the pandemic, but they are opened and seem conscious of the possibilities of being perceived more positively.

Already global environment of the PC-building subculture may have become a bit more globalized in times of pandemic when global Internet turned out to be a stronger connection with the world than personal, local culture interactions. Cultures seem to vary mainly in intensity and form of some basic processes such as stratification, hierarchization and such. Saturation of the sample appeared very fast giving almost the same responses from all of my interlocutors in areas of the most important subculture studies indicators. Actually, the hierarchization processes within the culture also remained the same with addition of a division between long-term (pre-pandemic) PC-builders and pandemic-born ones.

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