1. Innovation drives the growth of economies. This claim has never been more true; yet, it’s meaning has changed. Today, the biggest economic change on the horizon doesn’t have to do with any particular innovation, any particularly breakthrough technology. It will not be a quantum computer, a new Pathfinder or a revolutionary energy source. The technology has already come, but “revolutions” are never technological, they are always social. Only technologies that change societies are revolutionary. The change that can, and most probably will happen, is the social aftermath of the communication breakthrough that the Internet has brought. (dwa zdania o poprzednich tego typu przełomach – industrial revolution?). The balance is now shifting from economy based on monetary incentives, rivalry / competition and enclosure of knowledge (the implicit values that are often not stated) towards social motivations, collaboration and openness. Those values – often openly expressed are the basis of peer production. However, the shape of the commons based peer production communities are defined by the underlying technology that has allowed them to appear.
2. To better understand the possibilities and dangers opened with the new production modes, we need to first understand what made this change possible – and what made it so tempting to engage in. The enablers came from at least 3 interdependent areas: technological, motivational and economic. In those categories the changes come at different levels of granularity – from individual incentives through group or social level up to globalized economies.

The main breakthrough came from the communication and coordination capabilities of the Internet and following IC solutions. These are the primary enablers that have started an innovation cascade in almost every area of social and individual life. For the economic revolution the main enabler ensuing from the adoption of ICT is the enormous lowering of transaction cost needed to run any organization (Benkler). This of course has tremendous impact on institutions small and large, companies, etc. for which cheap communication frees funds for other activities but the most important consequence is that it might possible to coordinate the work, collaboration and deliberation of huge groups. With the cost of communication practically at zero, there’s no upper cap on the size of a community that can (self) organize (at least cost wise). Somethings that were unimaginable are now within reach – coordinated collaboration of thousands or hundreds of thousands of contributors. (Self-)managing a huge group of people has never been cheaper.

The less obvious enabler in this category has also to do with the magic of big numbers. The possibility to organize huge groups also means that we have high chances of accessing individuals of unprecedented diversity (in theory at least, some social motivations might work against contacting people too diverse). If a certain trait is extremely rare – 1 in 100k individuals possess it – with 500k engaged we have on average 5 of those contributing. This way such huge communities have an unprecedented possibility of tapping on potentials that were so far so inaccessible as to be practically inexistent. Therefore as the (unlimited) size of ICT mediated groups grows we have higher and higher chances of accessing enough motivated / talented / knowledgeable / innovative individuals to create something truly unique.

The second group of enablers is of a different kind and is indirectly linked to the revolution in communication. The speed of information transfer and the ability to communicate with so many others have led to what Shirky calls a “cognitive surplus”. Individuals have abundant resources (freed by innovation introduced into both work and leisure life) and thus can easily satisfy some cognitive needs that might have stayed frustrated otherwise. These include such needs as self-expression, creativity, freedom, agency, personal development. In standard economic contexts financial incentives so far used predominantly to tap individual cognitive potential might have been counter-effective. In many contexts it is clear that once financial rewards are present, other motivations disappear and are hard to reinstate even after removing financial incentives (Cialdini?, przedszkole). They are actually demotivating natural creativity.

What Shirky doesn’t talk about is the fact that there is also a social surplus that needs to be realized in some way. The individuation of western societies has arguably immensely weakened a lot of social relations (we often do not interact with even the closest neighbours, regular family ties are limited to closest relatives – except special occasions, etc.) In effect a lot of our social needs were frustrated in the capitalistic, individualistic society. The immense growth of social media (which use to earlier generations is unintelligible – Tufekci) is a proof of just how much people were in need to socialize. This way a variety of need gets satisfied: self-presentation, authority build-up, support, social identity. Albeit, this socialization due to various reasons tends to link us with similar others mostly (filter bubble) and might in fact lead to more segregation than integration.

The last type of enablers is the economic context itself. We have experienced a change from service oriented to information economy (intellectual property based) also called knowledge-based economy. Globalization of markets, widespread outsourcing of production etc. together with the emerging market for information based products has resulted in a demand for products and services that are unprecedently complex, diverse (fitted to many individual needs), flexible and that need to be produced in an environment and for a context that is not precisely defined, and is often frighteningly uncertain. Innovation cascades result in a so called “ontological uncertainty” (Lane) that renders companies unable to adapt and answer the needs that their products engendered. (In effect they often reach for means that are in fact hindering innovation – i.e. patent wars – Kostakis?) Developing products that fulfil those needs and may still exhibit the required flexibility often demands a lot of exploration and experimentation, design by insights and by application of often tacit knowledge and skills. All these are almost impossible to stimulate in a standard company or business that has limited HR available and which management requires well defined goals and tasks to distribute among workers.

1. Commons based peer production might seem like a revolutionary way out. But even before we analyze whether it is really capable of taking over the economy we need to be aware of the danger that it poses. There are inherent risks. Will the free labor of socially motivated individuals be a new offensive capitalism with even more exploitation than before (and much worse as it would not be consciously perceived)? Could it become a tool for authoritarian ideological control through spirals of silence and opinion corridors? (Jemielniak) Some argue that this “new capitalism” is as much about giving freedom as it is about taking it away (Sennett 2007). Fortunately, the choice which way this new economic revolution will go (will it pave new paths or reaffirm the old inequalities) is not totally left to chance. To a large extent it depends on the proper codification of values. In law, such codification was so far ensured by constitutions. They coded the nation’s values and virtues into implementable and enforceable rules. Today, a different type of code can similarly ensure the presence or absence of certain community values (cyt z lessig).
2. It is not a new idea that technological artifacts shape the behavior of communities. Even such a mundane artifact as a door imprints certain rules into the “insider” community – those that enter the building most often (i.e. “beware, on the way back the door might slam you in the face”) and discriminates against those that come from “outside” of the community (and the building…) (letour). Indeed, the “society” is built of human and non-human actors and should be analyzed by technologist and social scientists as well. (więcej cytatów). In the context of ICT mediated peer production we can see that implementation of features for individual contributor’s interface may have consequences for the community that builds around the platform. It is always the community that produces, not individuals. If a platform makes it hard to build a community around it – the process of production might never take off.
3. Examples of ill-fitted design: mediawiki + irc, tumblr and reply, etc
4. Benkler identifies several dimensions on which we can differentiate peer production that embodies community values from traditional companies. (skrót). It might not be instantly obvious, but moving along those dimensions can be enabled by certain design choices (of course, the code does not by itself ensure that certain values will be standardized in a community by forming norms, but it often sets some boundary conditions. In some communities, a lack of a certain feature will prompt users to search for complementary solutions / modules, in some others it will make users blind to the existence of the community option that such a feature might enable. Similarly, presence of certain features might spur the community to develop in certain way or might be ignored.)
5. Design choices and their possible consequences
   1. Well- and pre-defined structure of the product or governance – not open or elastic, but fast
   2. Pre-defined goals – prizes/competitions (time and ideas are fixed and dissolve after
   3. Pre-defined tasks – competition vs collaboration
   4. Openness vs closure
      1. Different motivation
      2. Wikipedia – driven by dissent (there needs to be an optimal conflict level / trust level)
      3. Diversity of not only motivation but also ideas
   5. Modularity – auto-selection
   6. Low cost quality control, peer review (crowd-funding)
6. Conclusions