Historical-Critical Dictionary of Marxism

General Intellect


Marx uses the expression ‘general intellect’ (in English) only once, but in a context that can be understood as offering a perspective on the high-tech mode of production and the crisis-ridden form that it assumes in capitalism. ‘General intellect’ stands for tendentially generally accessible knowledge that has become the decisive foundation of social production and that affects increased productivity such that it drives the capitalist market-economy, regulated through the value of labour, towards its historical limit. – The expression ‘general intellect’ has become a sloganistic term for political mobilisation above all in Italian post-workerism – at the cost of theoretical arbitrariness.

1. Marx speaks of the ‘general intellect’ in the Grundrisse (706) – in the manuscript, the passage is double-lined in the margin (MEGA II.1.1, 582 et sq.) – in order to grasp the tendency that enables science [Wissenschaft] to become the main force of production. The context is the section on fixed capital and the development of the forces of production (690–709). In post-workerism, this section, following Panzieri (1961), is referred to in a one-dimensionally abbreviated manner as the ‘fragment on machines’ (e.g., Virno 1996a, 9) or the ‘chapter on machines [capitolo sulle machine]’ (Negri 1998c, 169). Marx’s analysis, however, unfolds in the strategic triangle formed of the relations between the producers, the accumulated cultural-cognitive-technical potential (‘general intellect’) and capital, in order to uncover the emancipatory and historical-theoretical dimensions of the development of the forces of production.

In Marx, the discussion of ‘general intellect’ stands in substantive-theoretical proximity to the concept of general or universal labour. A prognostic social fantasy has been ignited on the displacements and contradictions that Marx anticipates in this relationship, ascribing an extraordinary significance to this small section of the Grundrisse.

The discussion of ‘general intellect’ concerns the entirety of the products and functions of ‘general social labour’ (694) or ‘general scientific labour’ (700): ‘Accumulation of knowledge and of skill, the general productive forces of the human brain’ (694), ‘general progress’ (694), ‘development of the general powers of the human head’ (705), ‘general social knowledge’ (706). The interest here is in the ‘transformation of the production-process […] into a scientific process’ (700) through the conquest ‘of the forces of nature by the social intellect’ (709). On the one hand, the productivity of labour depends increasingly on ‘the general state of science and the progress of technology, or the application of this science to production’ (705); on the other hand, the development of the sciences is selectively ‘forced’ (699) by the capitalist valorisation-process in that ‘invention’ is transformed into a ‘business’ (702).

1.1 Marx analyses the capitalist form-determination of these processes and their potential, but also, and conversely, the repercussion of the scientific rendering of production on the capital-relation, on the regulation of social production through exchange-value, and not least on the relation of the working subjects to the general powers of science. He
anticipates that the ‘great foundation-stone of production and wealth’ will no longer be the time-measured ‘immediate labour that human beings themselves perform’, but, instead, that the key issue will be their ‘appropriation of their own general productive power, their understanding and control of nature through their existence as social bodies’ (705; trans. modified).

A further perspective is connected here, that of the ‘social individual’ whose individuation unfolds in a medium of accumulated potencies more unlimited than under previous forms of articulation. The idea in the sixth of the Theses on Feuerbach indicates that the human essence has its reality in the historical ‘ensemble of social relations’ (cf. MECW 5, 4). This includes the complex ‘social inheritance’ – language and culture, but also the ‘technical environment [Geräteumwelt]’ and practical technical knowledge – that functions as a medium of humanisation. Insofar as science becomes the main productive force, the traditional class-based limitations on chances of accessibility and of appropriation tend to become permeable.

The capitalist form-determination causes the enormously increasing scientific-technical potential initially to confront workers as fixed capital and posits ‘the increased productive power of labour […] as its debilitation’ (702).

‘Science […] does not exist in the worker’s consciousness, but rather acts upon him through the machine as an alien power, as the power of the machine itself’ (693). Social knowledge and the general intellect thus function ‘as an attribute […] of fixed capital’ (694); and it is ‘not in the worker, but in capital, that general social labour manifests itself’ (694; trans. modified), the fruits of which are reaped gratis by the latter.

‘Direct labour’ becomes reduced ‘qualitatively to an indeed indispensable, but nevertheless subaltern, moment vis-à-vis general scientific labour and the technological application of the natural sciences; as ‘individual’, it [direct labour] remains productive only ‘in the common labours that subordinate the forces of nature’ so that its ‘elevation to social [labour] appears as a reduction of individual labour to helplessness vis-à-vis the concentrated commonality represented in capital’ (700; trans. modified).

What has been frequently overlooked in the interpretative literature is that, up to this point, Marx’s analysis is based on developments that, by the middle of the nineteenth century, were so far developed in England that they had found their classical description already before Marx. The relevant section of the Grundrisse begins with a citation from the French translation (1836) of a work by Andrew Ure, which Marx had excerpted in 1845 in Brussels. But Marx then let himself be borne along by the theoretical analysis beyond the existing relations in order to uncover anticipatorily the emancipatory potential of general social knowledge and intellect.

Thereby, the historical limit of capitalism comes into view simultaneously with the necessary (not sufficient) prerequisite for the emancipation of labour from wage-labour. Capital functions as a ‘processual contradiction’ in that ‘it strives to reduce labour-time to a minimum’ (706; trans. modified) – not the labour-time of the workers, rather the ‘quantum required to produce a specific object’; while on the other hand it posits labour-time as the only measure and source of wealth’ or, succinctly stated, as the ‘exchange-value of the use-value’ (705). It ‘works toward dissolving itself as the form dominating production’ (700). The regulation founded on exchange-value ‘breaks down’ when the purely quantitatively-measured labour and therewith the surplus-labour of wage-workers has become marginal to the production of social wealth (705).

Note. – Obviously unable to imagine anything about the meaning of Marx’s actually abbreviated formulation that grasps labour-time as the ‘exchange-value of use-value’, the Moscow editors of the 1930s supplemented the passage with: ‘exchange-value [the measure] of use-value’ (cf. Grundrisse 1953, 593). But abstract labour measured in time actually forms the ‘substance’ of the exchange-value of a product (‘use-value’), while exchange-value can never be the measure of use-value. – The editors of the second MEGA and, following them, those of the MEW (Vol. 42) have retained the insertion – the MEGA (II.1.2, 581), curiously, even in an artificially antiquated writing-style as ‘das
Maaß’ [Tr. note: instead of the contemporary ‘das Maß’], which has encouraged the most remarkable theories among the post-workerists.

1.2 In addition to the internal-economic argument for the break-down theorem, Marx pursues two further lines of argumentation that more readily point to the conditions of emancipatory political activity. The first points to the quantitative side of the contraction of labour-time, the second to the qualitative side of the strategic repositioning of workers in their relation to social knowledge-potentials and to the control of the production-process.

Quantitatively. – Capital’s minimisation of ‘human labour [as] expenditure of energy’ in relation to the individual product ‘will redound to the benefit of emancipated labour, and is the condition of its emancipation’ (701); the ‘degradation’ of the individual ‘to mere worker’, the individual’s ‘subsumption under labour’, is now potentially reaching its end (708).

Qualitatively. – ‘Labour no longer appears so much to be included within the production process; rather, the human being comes to relate more as watchman and regulator to the production process itself. [...] He inserts the process of nature, transformed into an industrial process, as a means between himself and inorganic nature, mastering it. He steps to the side of the production process instead of being its chief actor’ (705). – Although Marx only has mechanisation in mind, in a decisive point his description outpaces the existing facts, for the worker’s stepping-out of the immediate production-process and into the position of ‘watchman and regulator’ presupposes the development of a complex steering technology with feedback-mechanisms.

Marx had no conception of computerisation as the concrete form which has made it possible to transform technology, whether in the form of process-technical equipment or machine-tools, into closed ‘physical systems’ by attaching them to measuring and regulation techniques and ‘chaining’ them to other machine-complexes in which no living labour at all is included anymore. On this basis, Marx’s analysis – whose formulation (‘no longer [appears] so much’) points toward the limited removal [gebremste Abheben] of the given situation in his time – has retrospectively acquired a prognostic-descriptive content.

1.3 The immediate issue is the technology of the first phase of industrialisation in the nineteenth century that was characterised by the steam-engine. Marx cites an 1840 text of the reformist entrepreneur Robert Owen, in which Owen criticises his capitalist colleagues because they treat people as ‘secondary and subordinate machines’ and because they invest only in ‘soulless mechanisms’ rather than in their workers. But, as Marx recognises, the process of rendering production scientific requires the same of the individual – and even further, the ‘full development of the individual [...] as the greatest productive power’, which the increasing socially-available time actually makes possible. If ‘real economy consists of saving labour-time’, this however ‘in no way’ means the renunciation of pleasure, rather the development of power [Tr. note: English in original], of productive capacities and therewith both the capacities and means of pleasure’ (711; trans. modified). Referring to Owen’s train of thought, Marx reflects on the immanently capitalist categorisation of such human development – a century later, it is called ‘human capital’: ‘From the standpoint of the direct production process it can be regarded as the production of fixed capital, this fixed capital being man himself’ (711–12).

From the standpoint of the critique of political economy, mechanical systems are ‘organs of the human brain, created by the human hand; objectified knowledge-power’ (706; trans. modified). Though fixed capital necessarily manifests itself in technical systems, ‘knowledge-power’ is however not necessarily fixed capital. People, moreover, are never capital even if capital can incorporate their labour-power. – Referring to Fourier, whose notion of work becoming play he rejects, Marx sketches the dialectic of free-time and labour-time and emphasises the transformation of the working subject: ‘Free-time – which is both idle time and time for higher activity – has naturally transformed its possessor into a different subject, and he then
enters into the direct production process as this different subject. This process is then both discipline, as regards the human being in the process of becoming; and, at the same time, practice [Ausübung], experimental science, materially creative and objectifying science, as regards the human being who has become, in whose head exists the accumulated knowledge of society (712).

1.4 This provides the context in which the expression ‘general intellect’ appears: ‘The development of fixed capital indicates to what degree general social knowledge has become a direct force of production, and to what degree, hence, the conditions of the process of social life itself have come under the control of the general intellect and been transformed in accordance with it’ (706).

A secular tension is concentrated in this sentence: the statement that the social conditions of life ‘have come under the control of the general intellect and been transformed in accordance with it’ is ambiguous because it can refer equally to the natural as well as the social conditions of life. It could seem that Marx means only the practical, technical ‘conditions of the process of social life’, the social machinery. But such an interpretation misunderstands the dialectical-experimental mode of thinking that was deposited in the manuscript of 1857–8.

The Marx of the Grundrisse pays attention to tendencies and inquires into empirical signs on which latent possibilities can be read. Even if he sees that the scientific-technical deployment of natural processes remains blocked by class-antagonistic strategies and by private strategies that compete against one another in the marketplace, which create a régime of secrecy concerning technical knowledge, and which exclude others from its use, he also sees therein the objective possibility of a control in the sense of the ‘general intellect’. The ‘degree’ that can be read from fixed capital and that indicates how far the creation of forces of production as ‘immediate organs of social praxis’ (ibid.) has progressed is what is meant by latency. The latently developing possibility remains, of course, sidetracked into a self-referential valorisation-process that ever faster undermines the life-conditions – both natural and social – of the species.

2. The microelectronic revolution in the last third of the twentieth century seems at least partially to have confirmed Marx’s ‘general intellect’ prognosis of the increasing scientific constitution of capitalist production through the erosion of its capitalist forms. Paolo Virno, who sees it in this way, considers Marx’s thesis ‘hardly “Marxist”’, because according to it ‘abstract knowledge, precisely on the basis of its autonomy from production, would be nothing less than the main force of production’ (1990, 10; also 1996a, 22). However, knowledge that is applied to production is not ‘autonomous from production’, and Virno’s own thesis of the ‘self-driven growth of knowledge-separate from work’ (1996a, 21) overlooks the increasing subsumption of knowledge-production to the capital-process. Also off the mark is Virno’s view that Marx ‘fully identified “general intellect” (or knowledge as the main force of production) with fixed capital’ and overlooked the fact that it simultaneously ‘manifests itself as living labour, scientific-technical intelligentsia, mass intellectuality [Massenintellektualität]’ (1990, 12). This last point describes an important moment, but absolutises it and overlooks the fact that the ‘general intellect’, as Rossana Rossanda noted, ‘quickly lets itself be transformed into “dead labour”’ (1991/96, 71).

2.1 At the same time as the ‘Wall’ fell and European state-socialism of the Soviet kind collapsed, masses of students in Italy occupied the universities. This was the hour of the birth of post-workerism. After the mass Fordist working class, the subject of monotonous, repetitive assembly-line work (cf. Wright 2000) and the class-basis of Italian workerism, of Autonomia operaia, was forced out of the factories and dissolved, the remaining intellectuals in the movement, witnessing the protest-movement in the universities, identified students as part of the new revolutionary subject, which they named, as successor to the ‘mass-worker’, the ‘mass-intellectuality’. ‘Anything but marginal’, it was stated in an appeal of February 1990 (Bascetta et al.), this mass-
intellectuality is ‘at the centre of capitalist accumulation and the exposed nerve of a mode of production of which knowledge is the main component’. Marco Melotti and others (1996) questioned the postulation of such a ‘universal class’.

The first issue of Luogo Commune, a periodical newly founded during this ‘conjunction’ in November 1990, reprinted large sections of the erroneously called ‘Machine Fragment’ from the Grundrisse, in which Marx speculatively uncovers the potentialities of the development of the productive forces for the working subjects. The reprint is interrupted with citations from student-resolutions. Two articles are devoted to the ‘general intellect’ (Virno 1990, Giannoli 1990). Since then, the expression ‘general intellect’ has functioned as one of the main identifying terms of post-workerism – connected above all with the problematic concept of ‘immaterial labour’ (referring to all labour that is not predominately corporeal or ‘manual’ labour producing immediately material goods).

While the post-workerists are convinced that we live in the ‘epoch of the general intellect’ (Giannoli 1990, 19) – that is, ‘that a world of production dominated by the “general intellect”, as Marx proposed in the Grundrisse, has become daily reality and the nerve-center of the accumulation of wealth’ (Moulier Boutang 1998, 7), that moreover ‘the realm of the general intellect is the globalisation of the economy’ (Castellano 1994, 53) and that all labour is tending toward becoming ‘immaterial’ – for Modugno these developments indicate that the social power of the ‘general intellect’ has already gone over directly into the hands of post-Fordist capital and seals the new mode of production, ‘the definitive separation of the human brain from the “general intellect”’ (1994, 14, 16; likewise Pala 1997, 66). This critique, however, must itself be confronted with the fact that ‘high technology’ has in fact displaced knowledge and competence at the individual site of labour – even if in a contradictory form (cf. PAQ 1987). ‘Automation leads to higher qualifications’ – this battle-cry issued against the current in 1975 (Frigga Haug et al.) has essentially been confirmed (which, of course, is accompanied by the fragmentation of the working class, increasing mass-unemployment and the increase of precarious kinds of employment). Virno calls the result of this process a ‘redistribution’ of the ‘general intellect’ ‘in the interior of living labour’ (1990, 13).

2.2 The determinations that are attributed to the ‘general intellect’ vary with the various calls of social groups to join with the plural autonomous-communist subject (the ‘multitude’ in post-workerist jargon). ‘The “general intellect” encompasses artificial languages, informations- and systems-theories, even the most informal “language games”’. (Virno 1990, 13) The specialisation of language-games notwithstanding, ‘general intellect’ should literally be understood as ‘intellect in general’, just as in speaking a momentary and unrepeatable expression is actualised out of the inexhaustible potential of a language (Virno 1996b, 194f). In this view, ‘general intellect’ is a ‘real abstraction equipped with material operability’ because it consists of ‘objective concretisations of knowledge’ (Virno 1996a, 23). – The unity of the expression only superficially holds the diversity of the intended meanings together. ‘Diffused intellectuality’ and ‘general intellect’ ‘name the multitude, which inheres in the power of knowledge as such’, ‘the unitary power that constitutes the many and varied life-forms as forms-of-life’; they are supposed ‘to form the guiding concept and unitary center of a future politics’ (Agamben 1996, 156).

Jean-Marie Vincent gives to the Marxian term ‘general intellect’ the meaning of ‘a plural, multi-formed intelligence conceived in continuous transformation’, of an ‘intelligence évolutive des situations’, which really has become such a decisive resource for the ‘post-Fordist’ economy that production would collapse if the scientific-technical intellectuals were to refuse to serve it (1993, 122). Vincent describes the logic of the new intellectual labour as dialogical, communicative and reflexive, non-linear, oriented toward complementarity and playfully accompanying changing situations. On the other hand, he accords to the valorisation-logic the opposite of all
this which (with the exception of the repression of reflexivity in relation to the maximisation of profit) is not overly convincing, for even advanced entrepreneurial leadership orients itself according to these parameters. However, he describes society's 'general intellect' as multiply blocked by reductions in accessibility, exclusions, property-rights, and so on, which derive from the form-determination of capital or the commodity. On the other hand, in turn, it would shrink the characteristic forces of production of the high-tech intellectual labourers and cripple their development if they were cut off from general intellectual circulation. Thus capital's blockades, for their part, are trapped in a contradiction; and hence the attempt selectively to open the borders. The neoliberal tactic, with which the field of the 'general intellect' is to be divided and domesticated, is its polarisation into winners and losers (1993, 123).

Antonio Negri categorises post-Fordism 'as the regime of the 'general intellect'’, or as ‘the mode of production based on the “general intellect”’ to which the socialisation of services is adequate ‘as a tendency, the central element’ (1998b, 173, 1177, 174). Maurizio Lazzarato explains this as the most modern sector of the economy, as the 'heart of the new capitalist production'; everything else he declares to be unproductive (1996, 12).

2.3 Here, the discussion of the epoch of the 'general intellect' seems to lead to the conclusion that high-tech forces of production with intellectualised and flexible-work requirements (cf. PAQ 1987) have become the standard. But, if we get stuck at this point, then the main idea that Marx originally bound to the expression would disappear and the theorem of the 'general intellect' would be stripped of its critical power. Negri attempts to reckon with this insofar as he treats the 'general intellect' as 'the ramifications of the expenditures of the human brain in the interior of capital' and insists that this process has already reached the point where the social intellectuality of labour can reappropriate fixed capital, that unparalleled materiality of socialisation' (1998b, 175).

Actually, however, it can only be in the narrowed capitalist-technologised sense that one maintains that, in Marx's words, 'the conditions of the process of social life itself have come under the control of the general intellect and been transformed in accordance with it' (706). It would be a similar 'Lorianism' (Gramsci) to insist that this condition predominates, as does Negri's statement that he 'has been thinking constantly since the seventies': 'We already live in communism' (1996b, 106) even if it is only the 'communism of capital' – which Moulier Boutang (1998, 8) calls the 'growing socialisation of the inseparable network of science and production'. But it is precisely the character of this 'socialisation', which is multiply antagonistic precisely because it is determined by particularistic profit-strategies, that needs to be analysed. As fruitful as it is to pay attention to the 'increasingly comprehensive reappropriation of techno-scientific knowledge by the proletariat' (Negri 1998a, 78), it is to the same degree senseless to announce the 'end of each and every difference between production and life' (79) and on this illusionary basis to suggest to the socially diffused existing intellectuals of all kinds, above all to the individualised and often isolated participants or graduates of some 'higher' education, that they are the new 'social/societal workers' par excellence (Negri 1996a, 88) 'without the passage through wage-labour being necessary' (Lazzarato/Negri 1992, 34). With an exaggeration that drives its kernel of truth to absurdity, Negri (1996a) announces that 'in the center of society and the order of power' now stands 'a kind of production that consists of linguistic activities'.

3. If Marx speaks of 'general intellect [allgemeiner Verstand]' in an attempt historical-materialistically to concretise Hegel's 'universal spirit [allgemeiner Geist]' (Hegel 1977, 16), then this is metaphorical, a speculative compression – strictly speaking, an inadmissible personification. Marx's 'general intellect' exists as little as an empirical subject as does Rousseau's volonté générale; there is only a certain level of scientifically-based cultural techniques, and also a crowd of intellectuals that develop themselves individually in its medium, and whose development presupposes – regardless of how they are gained, distributed, and made accessible – the socially-accumulated masses of knowledge that are used in a spe-
specific manner, as well as the transmission of skills for their appropriation and use. With an eye toward socio-political praxis, Marx in Capital Volume III speaks 'more concretely [diesesitger]' of the 'associated intellect [assoziierter Verstand]' (MECW 37, 256; trans. modified). This corresponds to the political goal of 'associating of free and equal producers consciously acting according to a common and rational plan' (MECW 23, 136).

The category of 'general intellect' is not only meaningful in the prospective sense of transcending capital. As already efficacious, the 'general intellect' is blocked, and precisely in this state of being blocked it is negatively present in that its blockage produces crises. The capitalist thwarting of the 'allgemeiner Verstand', that is, the fact that all social processes are carried out 'brainlessly' as market-processes with a partial and abstract rationality, puts the existential conditions of the species at risk. An economic order established according to social potential for rationality would orient itself toward goals like ecological sustainability and social justice.

Vincent indicates, implicitly, that the category of the 'general intellect' in its Marxian sense requires a critical distance from existing relations. 'Because of its plural character and the manifold exchange-acts in which it develops, which make up its strength' (1993, 126f), he sees the 'general intellect' as limited in its 'generality', that is, in its ability to influence that which it helps to set in motion (production, consumption) (129). It would promote the multi-dimensionality of individuals and would frame a mode of life whose tendency would be to transform labour into 'free activity' (ibid.). The 'collective intellectual and social power that the "general intellect" unfolds' is however being diverted by capital and used for purposes of its valorisation to the same degree to which political intervention is directed away from the structuring and distribution of the powers of society (ibid.).

In analogy with the discussion of the class-in-itself that must become a class-for-itself, one could say: the epoch of transnational high-tech capitalism is, by virtue of its scientifically constituted [werwienschaftlichen] mode of production, the epoch of the 'general intellect'-in-itself; it falters on the threshold of the task of establishing the efficacy of a plural-universal reason. The fact that capitalism has become global does not mean that it has become more rational in general. What has become global is its systemic irrationality that results from the bustle of myriads of antagonistically operating 'particular intellects'. Its 'intellectuality', however, is developed in a medium whose expanded reproduction nourishes itself globally. In terms of its possibility, this 'intellectual medium' has, for the first time, become general. The contradictions between the general intellect [allgemeiner Verstand] and the capitalist exclusion of 'universality [Allgemeinheit]' from its realisation mark the struggles of the internet-age.


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Association, automation, development of the productive forces, disposable time, division of labour, ensemble of social relations, formal abstraction/real abstraction, high-tech mode of production, immaterial labour, information-society, internet, labour in general, labour-organisation, labour-time, Lorianism, mass-intellectuality, mass-worker, matter, mental/manual labour, post-Fordism, post-workerism, science, scientific-technological revolution, self-valorisation, value, workerism.