The scientification of work as a challenge to university education

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“Why can the colonization of science by the economy take place on a global scale although the counter–productive effects of this development are undeniable?”

(Akademischer Kapitalismus, 2011, 64)
Scientific and socio-technological developments

- Life-sciences etc.
- Telematics
- Big Data
  Computerised labour
- Sensor Technology & robotics
- Epoch of automation
  Microelektronics
- Tool - machine
  drive machine & transmission
- Mechanical epoch
A new **scientification** of work

- understanding for the scientific character of information and scientific correlations
- capacity to grasp and handle problems on an analytical level
- way of thinking in scientific concepts
- self–dependent learning
- social competences
Societal crisis of *cultural forms* of

- developing labour in automated production, circulation and
- political regulation and participation
Totally automated stock exchange

Without any reflection and without any political participation, the concentration of power in technologies of the financial markets and elsewhere loses its societal legitimacy.
“The confidence in ICT-systems is seriously damaged. Since many business sectors and their clients depend however very strongly on reliable and trustworthy ICT, a Digital Europe must create the general context and provide alternatives to reduce the dependence [on ICT systems from US companies, I.L.] systematically by restoring the confidence with alternative and tested ICT-solutions and by enabling a stronger digital sovereignty.”
“According to the Standish Group, businesses in the United States spend more than $250 billion annually on software development, with the cost of the average project ranging from $430,000 to $2,300,000, depending on the company size. Only 16% of these projects are completed on schedule and on budget. Another 31% are cancelled, primarily due to quality problems, creating losses of about $81 billion annually. Another 53% cost more than planned, exceeding their budgets by an average of 189%, creating losses of about $59 billion annually. Projects that reach completion deliver an average of only 42% of the originally planned features.”
The need of ... societal legitimacy of technological automation and power

trustworthy ICT–systems for many sectors such as business, health care, judiciary etc.

an educational institution that is apt and powerful to create cooperative competence
arguments for strengthening and reinventing the institution of the university in the 21st century
Differences

- mode of working
- agency according to intellectualized skills

- increase of academic titles
- agency according to jurisdiction (control based on licence and mandate)

“scientification of work”
“academization of jobs”
<table>
<thead>
<tr>
<th>Specialized occupations (1)</th>
<th>Unskilled jobs (2)</th>
<th>Unspecialized occupations (3)</th>
<th>Professions (4)</th>
<th>High-skilled labour without professional status (5)</th>
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<tbody>
<tr>
<td>Operator for metal cutting machines</td>
<td>Agricultural workers</td>
<td>Professional drivers</td>
<td>Physicians</td>
<td>Marketing</td>
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<tr>
<td>Process mechanics</td>
<td>Warehouse and transport workers</td>
<td>Gardeners</td>
<td>Lawyers</td>
<td>Journalists</td>
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<td>Turners</td>
<td>Janitors</td>
<td>Assembly worker</td>
<td>Judges</td>
<td>Consulting, counselling</td>
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<tr>
<td>Welders</td>
<td>Beauticians</td>
<td>Workers in food production</td>
<td>Teachers for „Gymnasien“ (grammar school)</td>
<td>Teachers in „Berufsschulen“ (vocational education)</td>
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<tr>
<td>Plant mechanics</td>
<td>Childcare workers</td>
<td>Shop assistants, salespersons</td>
<td>Architects</td>
<td>Humanities scholars</td>
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<tr>
<td>Nurses</td>
<td>Restaurant employees</td>
<td>Employee in sales and distribution</td>
<td>Engineers</td>
<td>Other engineers</td>
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<tr>
<td>Legal assistants</td>
<td>Domestic cleaners</td>
<td>Werbefachleute</td>
<td>Pharmacists</td>
<td>Software developers</td>
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<tr>
<td>Assistant pharmacists</td>
<td>Office support personnel</td>
<td>Taxifahrer</td>
<td>Priests</td>
<td>Teachers in adult education</td>
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Mikrozensus 2009; Langemeyer/Martin 2014
Thank you for your attention!