DIGITIS ATION AND INCLUSIVITY: TAKING EVERYONE ALONG

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The inclusivity paradox of the digital age



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Behind every "age", as if by definition, lies a spark. Ironically, although the "digital age" may be the most profound of them all, as deducible from its own so-called "digital revolution", its timespan is too fluid and that "revolution" is more revolutionary linguistically than it is on the ground. Still, "digital age" captures our minds, just as the "Cold War Age" had done after World War II, and the "age of imperialism" did until World War II. Though scholars and pundits typically trace the "digital revolution" to the 1980s or 1990s (when a sedate extant term, "digital", dramatically acquired new glow in everyday usage), whatever "digita" was ascribed to at the time had actually been foreseen before, for example, in John von Neumann's "parlour games" of the late-1920s. Since nothing scientific validates a concrete "digital revolution" or a "digital age", a "digital transformation" in the second 20th century half may arguably be a more appropriate label.

Behind that thick introduction lies what the *Economist* posited in one of its 2014 cover-pages as the emerging "digital age" fear: "Rise of the robots," and with it, a "robot invasion. . .[to]. . .change the way people think about technology." "Digits" (numbers) have not displaced "texts" (description), and "net jobs" have not been lost to "robots" or other new gadgets. Of importance is to identify what catalysed this innocuous "digital transformation" into a force rattling our nervous system, serving both as a weapon we can wield and a threat we personally face.

Henning Meyer's five filters lubricate the start. These are ethical, social, corporate governance, legal, and productivity filters. Ethical filters get invoked, for example, when a new bio-technological contraption alters natural food components, triggering moral, religious, or political concerns. Of far broader relevance, social filters dig out job-related consequences of new technologies, ranging from job-displacement by machines (as the assembly-line does to manual production), to job-transfers (from one skills-level, or profession-specific technology, to another). How Dhaka's automated metro-line will soon shift train-drivers and train-conductors into programme managers, managing several trains simultaneously from remote switchboards rather than from within each vehicle, exemplifies the

Corporate governance elicits a similar fear: Meyer's distinction between the short-term Anglo-American orientation over the long-term European counterpart in technology-related preferences also has our own counterpart: whether meat should be prepared by human hands or machines in a Muslim, thereby halal-receptive, society. Automobile accidents or insurance similarly raise legal questions in western countries, as too productivity filters flagging a new online technology that adds prints on hand-crafted fabric, thus modernising only one component amid an otherwise traditional production process.

After filtration, which usually is not time-consuming, perhaps even

a parallel function, the relationship between the human job and the new machine/technology invites other considerations, typically within a tripartite compartmentalisation: will the machine "substitute" the human, serve as a "complement", or become

"creative", that is, generate new jobs. Several empirical studies already question if machines actually substitute humans: if new technology displaces jobs in one part of the company, it cannot but create new jobs in other segments of the company's production line. Since machines have to be programmed, serviced, repaired, enhanced, and so forth, for the company to compete, new service-jobs get created as manual jobs get trenched. That is, modernisation, and particularly relevant to Bangladesh since its leading export commodity, ready-made garments (RMGs), faces automated external threats. Manual labour-jobs get swallowed (60 percent, experts say, by 2030), and robots service RMG plants.

Machines elevate society to higher skill-levels. After all, losing manual knitting and sewing just when higher-skilled technicians create and supervise robot programmes, represents advancement. Why should the society/country be worried?

Two other important trade-offs beg Bangladesh's attention. The first is economic: against increasingly intense RMG competition from such countries as Cambodia, Myanmar, and Vietnam (and in the near future, a string of African countries), might Bangladesh turn to automation just to retain its global competitive punch? The second has social bearings: what would happen

to the 4-5.5 odd million RMG workers (more than half being women)? Would gender-balancing be constrained? Or would alternate jobs particularly suitable for women open?

suitable for women open? Although both trade-offs must be empirically tested, since the very growth of information technologies (ITs) also requires the same meticulous manual attention and application as the RMG production processes, those same RMG workers qualify for higher-skill opportunities with their meticulous manual input. Women have done just as well, if not better, in this arena than men. Shifting laid-off RMG women workers to the IT industry releases two "sparks": more active recruitment of women in Bangladesh's IT sector, expanding the sector size; and pushing basic intellectual training upwardly to those women-dominated RMG-specific sectors. The private sector caters to the first if market demand is there, which promotes IT product transactions across the country and transfers/directs women-power into this sector. Robust governmental intervention enhancing comprehensive education from the very start is needed for the second.

"Digital Bangladesh" includes the newly initiated "Sheikh Russell Computer and Language Lab" (SRCLL) plan with the ICT (Information and Communications) Ministry and CRI (Center for Research and Information) to open 10,000 schools and colleges across the country. Bangladesh must now seize openings suitable for robotising the RMG industry, should "push" become "shove" globally.

Digressing into Bangladesh's RMG sector exposes five of Meyer's "digital age" cornerstones. His first adapts education to 21st Century technology-tailored jobs and society. Past education curricula will not withstand the needs of the practical and materialistic 21st century: theories have to go, meaning a greater blow on many social science disciplines than for professions or natural sciences. Bangladesh's Universities Grants Commission's glacial a posteriori flexes to intellectual changes must now be substituted by a priori calculations or assessments. Jobs on the streets and in the market must be actively supported, supplemented, and safeguarded by the Ministry of Education. It cannot but go online, instead of retaining tons of meticulously crafted manually assembled office files and registers.

Meyer's second cornerstone, of finding new jobs for robot-displaced workers, has already been addressed through Bangladesh's RMG industrial changes. So too has the third, of public policymakers reading the job-market accurately, but more importantly, preemptively, if only to retain a cutting-

edge in this fast-moving world. Many policies require lengthy gestation from preparation to practice/enactment, and a jobs ministry working in tandem with a social affairs ministry should become a top-priority consideration. It also implies some degree of privatepublic partnership (PPP) between initiated and institutionalised sectors. In fact, the fourth cornerstone, of financing job-creation and -cultivation, especially for digitally displaced workers, overlaps this PPP initiative, which carries other spill-overs worth exploitation. For instance, the private could be broadened to include foreign entrepreneurs, since multi-nationalising economic behaviour is part and parcel of the digital revolution. Above all, the digital revolution now permeates almost every human function and/or

production process. Ultimately, the fifth cornerstone builds upon, and can actually happen only if all the above four become operational. Capital ownership, but no IT society, can be easily democratised, setting up a tension, since new knowledge stems more from individual-level than social-level skillsets. Cultivated knowledge accelerates faster than socially streamlined knowledge: competitiveness, which is intrinsic to creating new knowledge, generates that private-public chasm. As it bears upon education, this tension must be allowed to grow, albeit along more tamed parameters and contours at more sub-innovation levels for the public. PPP democratises capital ownership by encouraging both new IT thinking at lower tiers and top-tier competition. Balancing both extracts the most, but necessitates governmental intervention.

That must be the digital age message: how to minimise the ever-widening gap between those who know and those who do not, those with "active" and "passive" brain-power, since there is no space for even resurrected brainpower to close that gap. Claims of a digital revolution also fall apart with knowledge emanating from individuals more than society. Pushed farther, even reference to a digital age is also not at all new within society: what is new to the public is unlikely to be so to the generator of that idea. Martin Krzywdzinski, Christine Gerber, and Maren Evers, among others, have been hammering away at this weak digital revolution claim for some time now. In a 2018 piece, "Social consequences of the digital revolution," they correctly pointed out how renowned Social Scientist Herbert Simon, along with Allen Newell, predicted in 1958, when there was no PC (personal computer), how a digital computer would defeat



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