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in the Area of Electronic Commerce:
Human Resource Development
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Training in the area of electronic commerce:
needs and possibilities

Issues paper prepared by the UNCTAD secretariat

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Box 1: So what is the "new economy"?

INTRODUCTION

1. In the agreed conclusions it adopted at its second session, the Commission on Enterprise, Business Facilitation and Development decided to convene an expert meeting on the topic of "Capacity-building in the area of electronic commerce: human resource development".¹

2. This paper has been prepared by the secretariat as a stimulus for expert discussion. It consists of four parts. The first points to the importance of human resources in the "new economy" of information. The second endeavours to pinpoint more accurately the nature of training needs in the area of electronic commerce. The third is intended to identify UNCTAD's comparative advantages regarding the requisite types of training. The fourth and last part contains some concrete training proposals for electronic commerce capacity-building in member countries.

I. Context: human capital and the "new economy"

3. A major paradox of the technological revolution that has taken place over the past 20 years is that the human factor has been brought to the forefront in the mechanisms of competitiveness. However, this is quite natural if we bear in mind that, in information technologies, creativeness, innovation and ideas in general have been the driving force behind many activities of the "new economy" (see box below).

Box 1

So what is the "new economy"?

"When we talk about the new economy, we are talking about a world in which people work with their brains instead of their hands. A world in which communications technology creates global competition - not just for running shoes and laptop computers, but also for bank loans and other services that cannot be packed into a crate and shipped. A world in which innovation is more important than mass production. A world in which investment buys new concepts or the means to create them, rather than new machines. A world in which rapid change is a constant. A world at least as different from what came before it as the industrial age was from its agricultural predecessor. A world so different its emergence can only be described as a 'revolution' (...)

Microsoft has annual sales of US\$ 11 billion, and most of its assets walk in and out of the doors wearing T-shirts (...) The result: new rules of competition, new sorts of organization, new challenges for management".

John Browning, "Encyclopedia of the New Economy", WIRED, March 1998

¹TD/B/COM.3/L.7, 9 December 1997, para. 21.

4. If, as the experts predict, electronic commerce reaches US\$ 300 billion in the next two years, the consequences of this phenomenon will affect the very nature of international trade and will alter the mechanisms that link trade and development. Aside from its volume, it is the very nature of electronic commerce that could well have the greatest impact on the economic development process in developing countries and on their integration into a globalized economy. Participation by small and medium-sized enterprises in this new trade is of remarkable importance and potential.

5. However, the technical, legal, fiscal and economic context in which electronic commerce is set to develop is now experiencing very rapid change. The four initial proposals for a "global framework for electronic commerce" (United States, European Union, Japan and OECD) are being refined and are drawing closer together: the subject of electronic commerce is starting to be taken up by the World Trade Organization (WTO) and OECD will be holding a ministerial meeting on it in Ottawa, next October. UNCTAD itself will be continuing its analytical and operational work on this topic, which will lie at the core of the first meeting of "Partners for Development" (Lyons, November 1998).

II. Importance of human resources in electronic commerce

6. It would be a mistake to think that electronic commerce amounts to nothing more than a set of information techniques and interchange. In the last analysis, trade in goods and services through electronic commerce is not fundamentally different from that of traditional trade; it calls for the participation of men and women able to identify business opportunities, to find trustworthy middlemen and to set up a complex delivery chain. Such men and women must therefore be as well acquainted as they were in the past with international trade practices and tools.

7. Furthermore, modern information technologies, particularly since the worldwide development of the Internet, place enterprises that are able to use them and master them at an advantage over their competitors. They can (1) cut down transaction costs, notably by disintermediation, (2) more quickly obtain strategic information on a product, market or potential partner and therefore outpace the competition, and (3) deal in goods and services that are new or were previously regarded as "non-tradable". An acquaintance with the underlying techniques of electronic commerce therefore requires specific additional training.

8. Again, at a time when a general framework of rules and disciplines for genuinely global electronic commerce is being set up, it is important for all interested countries to be able to play an active and positive part in preparing them. Accordingly, developing countries in particular must have executives who have been trained in international negotiations in the area of electronic commerce.

9. The participation of everyone, particularly developing countries and their enterprises (especially small and medium-sized enterprises) in the new globalized markets of electronic commerce therefore calls for at least three types of training endeavour:

- (a) Training in the general techniques of international trade;
- (b) Training in the underlying techniques (networks access, use of the Internet) and in the specific tools of electronic commerce (secure messages, contract environment, invoicing and payments, for example);
- (c) Training in international negotiations in the field of electronic commerce.

III. UNCTAD's role and potential

10. In recent years electronic commerce has developed even more rapidly because the "technological" answers have come earlier than many people had expected. This speed-up has had two major consequences: (1) economic answers (who pays what and how?), legal answers (encryption, intellectual property, content control) and regulatory answers are now the main sticking points to the development of electronic commerce, and (2) in a rapidly and constantly changing technological environment, any "theorization" of electronic commerce is a risky exercise; the practitioners alone are the ones properly acquainted with electronic commerce. This latter point lends great weight to the operational activities undertaken by UNCTAD for many years in such fields as trade facilitation, the Automated System for Customs Data (ASYCUDA), the Advance Cargo Information System (ACIS) and electronic commerce itself (Trade Points Programme).

11. The existence of training networks such as TRAINMAR or TRAINFORTRADE fills in this picture and affords UNCTAD members an exceptional opportunity to combine substance and modalities. Indeed, the modern training techniques available nowadays with information technologies (interactive videoconferences, distance learning, self-training with CD-ROMs, for example) can be an ideal tool to train human resources in the field of electronic commerce. In this connection, use of the Global Trade Point Network (GTPNet) offers considerable potential.

12. At a time when preparations are under way for the first meeting of "Partners for Development" (Lyons, November 1998), UNCTAD is in a position to create powerful partnerships with private and public, governmental, intergovernmental and non-governmental players who will bring the requisite relevance and impact to its electronic commerce training efforts.

13. By combining these four comparative advantages (practical electronic commerce experience, training experience, command of a global information network, and capacity to mobilize partnerships), UNCTAD can meet some of its members' most urgent needs in training human resources for electronic commerce. The following section contains some examples, which the experts may wish to discuss, refine and expand on.

IV. Practical proposals

14. In the context of its technical cooperation activities, UNCTAD has already designed and disseminated training tools for human resources in electronic commerce. It does so more particularly through the TRAINFORTRADE Programme and the Trade Points Programme.

15. Under the TRAINFORTRADE RAB/96/001 project funded by UNDP and ATFP for the Arab countries, a series of training courses on general trade efficiency is now being developed. These courses take the form of teaching kits for international trade practitioners and students. They are made available to training institutions in the region. They make use of electronic distance training media such as CD-ROMs, video cassettes and manuals. Local and regional instructors trained in the context of the project organize courses so that distance learning involves an electronic link between the instructor and the trainee (telephone, fax, e-mail, Internet, and so on). Group sessions are also organized by instructors. A kit on "The financing of trade and payments" will be available in English by June 1998.

16. This TRAINFORTRADE distance learning course on electronic commerce for the Arab countries will include a number of modules covering the following subjects:

- (i) Legal aspects of electronic commerce;
- (ii) Electronic transfers and payments;
- (iii) Electronic commerce facilitation procedures;
- (iv) Trade information;
- (v) Marketing.

17. The teaching objectives and detailed content of this course will be submitted to the expert group on electronic commerce for comments and recommendations. In preparing the course, UNCTAD has drawn on the major international institutions and organizations that have acquired experience in the various subjects, more particularly on UNCITRAL, the International Trade Centre (UNCTAD/WTO) and the United Nations Economic Commission for Europe.

18. In cooperation with electronic commerce experts, UNCTAD will also endeavour to provide these courses to business executives through the Trade Points network. A similar teaching kit, on "Electronic commerce", is now being prepared.

19. Special training on the legal aspects of electronic commerce is envisaged, in cooperation with UNCITRAL. In conjunction with its training in trade diplomacy, UNCTAD could provide a specific module on electronic commerce. Lastly, other training areas to which UNCTAD could contribute include some that will doubtless merit special attention on the part of the experts:

- (i) Contracts, invoicing, payments and insurance;
- (ii) Subcontracting and calls for tender;
- (iii) Design and management of Internet trade sites.

20. In a large number of cases, UNCTAD's ability to provide such training will largely depend on the funding that can be obtained. Appeals will therefore be made to public donors as the need arises. It is nonetheless plain that the competence of the private sector (enterprises active in electronic commerce, such as banks in particular), will also have to be mobilized. In this connection, the forthcoming meeting of "Partners for Development" (Lyons, November 1998) is to be regarded as a major event.
