

INFORMATION TECHNOLOGIES AND EMPLOYMENT

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ABSTRACT

Over the last decade growing concerns have been expressed with regard to the impact of the introduction of new information technologies on employment. A number of experts, particularly in Europe, have predicted that the adoption of these technologies will cause major dislocations in the labor market and will lead to a net reduction in the overall employment level. The purpose of this presentation is to review the Canadian situation in the light of the experience of other countries and of Canada's particular strengths and weaknesses.

The first part of the presentation will provide an overview of information technologies and their applications. This will include a quick review of key technological innovations both in computer and communications technologies which have resulted in the emergence and growing importance of information technologies. This will be followed by a discussion of the main areas of applications of these technologies and of the direct impact of these applications on the various sectors of the economy (resource-based industries, manufacturing, white collar activities, service industries and the communications sector itself).

The second part of the presentation will address the conceptual and empirical problems related to measuring the employment impact of the adoption of these technologies. The fallacies implicit in many employment impact studies will be discussed and the concept of technological unemployment will be explored. Finally, this section will propose a possible approach for assessing the macroeconomic impact of information technologies.

The conceptual and methodological discussion included in the second part of the presentation will be followed by a review of the experience of other countries in part 3. The discussion will focus particularly on the U.S., Japan and Europe. For each country a quick assessment of the state of development and application of the technologies will be presented followed by a review of the employment debate.

Finally, the Canadian situation will be discussed in Part 4. This will include an assessment of Canada's strengths and weaknesses in the face of the information revolution and a review of the evidence available to date with regard to the employment impact. The presentation will conclude by a review of the key questions the various governments will have to face in the coming years with regard to employment and technological change.

LES TECHNOLOGIES D'INFORMATION ET LES EMPLOIS

RESUME

Durant la dernière décennie, on a manifesté un intérêt croissant relativement à l'impact de l'introduction des nouvelles technologies d'information sur les emplois. Nombre d'experts, particulièrement en provenance d'Europe, ont prédit que l'adoption de ces technologies allait causer des changements majeurs sur le marché du travail et allait amener une réduction nette du niveau des emplois disponibles. Le but de la présente communication est de réviser la situation canadienne en regard de l'expérience de d'autres pays et des points forts et faibles du Canada.