

## 論歐盟之資訊社會至數位化歐洲之崛起

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### 摘要

隨著科技的進步，社會正趨向多變，資訊社會的觀念，也成為當今社會的重要議題，尤以歐盟的例子最為顯而易見。

本研究報告為探究資訊社會與數位歐洲的關聯，於本文分三大部分探討。首先，本文將以資訊社會的理論為基礎做研究，進而整理歐盟資訊社會之相關政策。其次，本文分析歐盟經濟轉型至單一市場的歷程，並進而描述與數位歐洲相關的政策白皮書。最後，文末解釋數位歐洲之興起，其因是為提升歐洲的經濟。

本篇研究報告重點是以分析資訊社會與數位歐洲之議題，也討論其影響與歐盟的經濟發展。

**關鍵字：**歐洲聯盟、數位歐洲、資訊社會、單一市場

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## **The Emergence of “e-Europe” from the Basis of Information Society in EU**

### **I. Introduction**

Information society plays a significant role in global economy, especially in Europe. It contributes to the comprehension of the emergence of e-Europe, which determines the improvement of employment. The study is focused on the development of “e-Europe” which was related to economy and employment in European Union.

#### **A. Research Questions and Hypotheses**

The study is designed to investigate the new economy in European Union – e-Europe. Thus, it can be separated into two main research questions: 1) how did the e-Europe emerge in European economy? 2) how did the e-Europe make the connections between economy and employment in European Union?

As regards research hypotheses, they would be based on the research questions. First, the e-Europe will emerge from the concept of information society, in order to solve those problems of unemployment in European Union. Second, via employment strategies, the e-Europe will make connections between economy and employment in European Union.

## **B. Research Methodology**

The method of this Research is document analysis; that is, it would be based on the analyses of English books and official documents in Europe. In addition, this study goes largely beyond the “horizontal” analysis of the period from Single Market Act to Treaty of Nice in economy of European Union and applies a “vertical” analysis of the field from traditional economy to technological economy in European Union. This methodological logic will synthesize and analyze the development of European economy via the influence of information society.

## **II. Theories of Information Society**

In definition, information society can be divided into five main elements<sup>1</sup> --technological, economic, occupational, spatial and cultural conception.

### **A. Definition of Information Society**

#### 1. Technological Element

Information society focuses on “spectacular technological

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<sup>1</sup> Frank Webster, *Theories of the Information Society* (London: Routledge, 1995), pp.6-23.

innovation.”<sup>2</sup>The main idea is that “breakthroughs in information processing, storage and transmission have led to the application of information technologies in virtually all corners of society.”<sup>3</sup>

## 2. Economic Element

According to the thought of Machlup<sup>4</sup>, information society, in terms of economy, can be distinguished by education, media of communication, information machines, information services and other information activities. Those categories led to the contribution to Gross National Product (GNP); that is, they “increased proportion of GNP to chart the emergence through time of an information economy.”<sup>5</sup>

## 3. Occupational Element

On the basis of OECD publications (1981, 1986), indicate that “all member counties continued growth...in those occupations primarily concerned with the creation and handling of information and with its infrastructure support” (1986). The promotion of occupations comes from influence of information society; for instance, theorist Daniel Bell investigated “the emergence of white collar society and decline of industrial labor changes as profound as the end of class-based political conflict, more communal

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<sup>2</sup> Ibid., p7.

<sup>3</sup> Ibid.

<sup>4</sup> Ibid., p11.

<sup>5</sup> Ibid.

consciousness, and the development of equality between sexes.<sup>6</sup> Thus, the occupational element of information society that was emphasized by the post-industrialism of Daniel Bell can be explained as following<sup>7</sup>:

- A decline of workers employed in industry, ultimately reducing to a situation where very few people find work in industry.
- Accompanying this decline in industrial employment, continuing and sustained increases in industrial output because of unrelenting rationalization.
- Continued increases of wealth, translated from industry's output, which may be spent on new needs people may feel disposed to originate and fulfill.
- Continuous release of people from employment in industrial occupations.

#### 4. Spatial Element

The emphasis of spatial element in theory of information society is on “the information networks which connect locations and in consequence have dramatic effects on organization of time and space.”<sup>8</sup> According to John Goddard, the spatial element was

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<sup>6</sup> Ibid., p.14.

<sup>7</sup> Ibid., p.35.

<sup>8</sup> Ibid., p.18.

identified as following lists<sup>9</sup>:

- Information is coming to occupy central stage as the “key strategic resource” on which the organization of the world economy is dependent.
- Computer and communications technologies provide the infrastructure which enables information to be processed and distributed.
- The growing information society of the economy is facilitating the integration of national and regional economies.

#### 5. Cultural Element

Contemporary culture is intertwined with information society because human life is “quintessentially about symbolization, about exchanging and receiving in a media-saturated environment.”<sup>10</sup>

### **III. Policies of Information Society in European Union**

As for policies of information society, there are three main groups-- regulation in the information society, stimulating the sector in the information society and exploiting the benefits of the information society. Those policies led to an electronic Europe, especially one of stimulating the sector in the information society – the eEurope 2005.

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<sup>9</sup> Ibid.

<sup>10</sup> Ibid., p.22.

In the European Union, there are necessary policies to correspond with concept of information society. The table below highlights three main policies of information society policies in EU to show their practical functions.

Table<sup>11</sup>: Policies of Information Society in European Union

A	Regulation in the Information Society	Electronic Communications Regulatory Framework	Radio Equipment and Telecommunications Terminal Equipment (RTTE) Directive	European Audiovisual Regulation	
B	Stimulating the Sector in the Information Society	e-Europe 2005	Research and Industrial Policy	Europe and Digitization	
C	Exploiting the Benefits of the Information Society	e-Government	e-Health	e-Inclusion	e-Learning

Source: European Commission, *Information Society Policies at a Glance*, 2005 ([http://europa.eu.int/information\\_society/policy/index\\_en.htm](http://europa.eu.int/information_society/policy/index_en.htm)).

The first column (A) in the table represents that the emergence of a global level's framework can set up the controlled principle of transmission and content and lead to commercial communication and protection of human dignity. The second column (B) represents that European Union pushed their industry and business into digitization, such as e-business. The final column (C) represents that

<sup>11</sup> Designed by the author.

advantage of information society in European Union would enhance European competitiveness and economic growth.<sup>12</sup>

#### **IV. Effect of Information Society -- from the Single Market to e-Europe**

##### **A. The Effectiveness of Single Market in European Union**

###### **1. The Positive Aspect**

In 1996, the European Commission presented the review of the single market, entitled “The Impact and Effectiveness of the Single Market.” According to the document, there are some positive effects of the single market (Commission publishes results of major study and prepares action Plan, 1996)<sup>13</sup>:

—Up to 900,000 more jobs than would have existed in the absence of the single market.

—In 1994, community income is estimated to have been 1.1% to 1.5% higher due to the single market - an increase of ECU 60-80 billion.

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<sup>12</sup> European Commission, *Information Society - eEurope 2005*, 2005, [http://europa.eu.int/information\\_society/eeurope/2005/index\\_en.htm](http://europa.eu.int/information_society/eeurope/2005/index_en.htm) .

<sup>13</sup> European Commission, *The Impact and Effectiveness of the Single Market*, Brussels, 1996.



—Inflation rates which seem to be 1.0% to 1.5% lower than they would have been in the absence of the single market.

Source: European Commission (1996)<sup>14</sup>

## 2. The Negative Aspect

The European Commission surveys have shown that some citizens are aware of the limitation of their single market rights, such as retirement abroad, social security and recognition of qualifications in European Union. Besides, the single market has been a powerful force for the re-regulation of markets in European Union, through the imposition of European Union's wide regulation, for instance, by setting common standards for products. In the sense of re-regulation of markets, the single European market sustains the neo-functionalist illustration of European Integration, in which the European deeper market integration has spilled over into other areas, such as enlargement and employment policy.

Therefore, the importance of e-Europe (application of digital technologies in Europe) for economic growth and employment in European Union was emerged.

### **B. The Economic Strategy for Unemployment**

As above mentioned, e-Europe plays an important role the

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<sup>14</sup> Ibid.

European Union's economic growth and employment. In December 1993, the white Paper, "Growth, Competitiveness, and Employment" was adopted by the European Council in Brussels. This paper suggested the "Delors Growth Strategy" in order to create 15 million new jobs by the year 2000, then diminishing unemployment of European Union rates from 10.4% to 5%.<sup>15</sup>

## **V. The White Paper Related to e-Europe in European Union**

### **A. The White Paper, "Growth, Competitiveness, and Employment"**

#### **1. The Summary of the White Paper**

There are two parts in the white paper: 1) the challenges and ways forward into the 21st century; 2) the conditions of growth, competitiveness and more jobs.<sup>16</sup>

In part one, it mentioned about why this paper put forwards, the information networks, trans-European transport and energy networks and annex of investing in the competitiveness of Europe.<sup>17</sup>

In part two, it mentioned about the macroeconomic framework, the conditions for growth and enhanced competitiveness,

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<sup>15</sup> Robert A. Jones, *The Politics and Economics of the European Union*, London: Edward Elgar, 2001.

<sup>16</sup> The European Commission, *White Paper on growth, competitiveness, and employment: The challenges and ways forward into the 21st century*, Brussels, 1994.

<sup>17</sup> Ibid.

trans-European networks, research and technological development, the changing society and new technologies, adaptation of education and vocational systems and turning growth of job.<sup>18</sup>

## **2. The Contribution of the White Paper**

The white Paper put forward a lot of definite proposals; for example, estimates to improve the European Union's infrastructure, enhancing research and technological development investment, increasing investment in employment training. Through those proposals, economics of European Union was urged to trade to higher valued activities, like the biotechnology industries and information technology by the white paper. In brief, the white paper had contribution for economic upgrade and growth.

### **B. The Delors Growth Strategy**

The “Delors Growth Strategy” offered the specific measures for economy and employment in European Union. The strategy aims for raising industrial investment, and it includes following items (Robert A. Jones, 2001)<sup>19</sup>:

- New incentives for part-time work.
- Tax incentives for small firms to create jobs.
- Training schemes for unqualified school leavers.

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<sup>18</sup> Ibid.

<sup>19</sup> Robert A. Jones, op. cit, p.284.

- Switching some labor costs from employers to general taxation.
- Greater wage flexibility.
- Increased investment in industry and in infrastructure;
- A higher investment rate of 23-24% of GNP.
- A target of 3% of GNP to be spent on research and technological development.

## **VI. The Emergence of “e-Europe”**

### **A. The communication, e-Europe— an Information Society for All**

The beginning of e-Europe came from the communication “An Information Society for All”, motivated by a growing realization of the significant of digital technologies for growth and employment. The communication was ratified by the Helsinki European council, afterward developed by the Lisbon and Feira European council.

### **B. The e-Europe 2005 Action Plan**

The e-Europe action plan will push the Commission and Member States to achieve the goal of e-Europe realization. It is the coordinated policy in European Union, and involves in the issue of information society. Furthermore, the action plan has been verified as a main point

in Lisbon strategy, if it succeeds, will influence on “employment, social cohesion, and economic growth with productivity in Europe.”<sup>20</sup>

## VII. Conclusion

The study presented above has identify the emergence of modern European economy— e-Europe. This article provides some questions to be consider— 1) did the e-Europe emerge in European economy for solving those problems of unemployment and enhancing the investment in European Union; 2) did the e-Europe make connections between economy and employment in European Union, via one of employment strategies-- the “Delors Growth Strategy.”

Empirically, this article illustrates a mixed picture of e-Europe and information society in European Union. This article suggests a view for witnessing the information society and e-Europe, especially related to the question of promotion of the employment rate and enhancement of the investment in European Union. However, the article should be considered as a provisional suggestion for further empirical research.

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<sup>20</sup> European Commission, e-Europe 2005. An Information Society For All Action Plan, Brussels, 2002.

## Reference

### A. Books

1. David, Lyon, *The Information Society: Issues and Illusions*, Oxford: Blackwell, 1988.
2. European Commission, *White Paper on Growth, Competitiveness, and employment*, Brussels: author, 1994a.
3. European Commission, *Europe and the Global Information Society: Recommendations to the European Council*, Brussels, 1994b.
4. European Commission, *e-Europe 2005 an Information Society for All Action Plan*, Brussels, 2002.
5. European Commission, *the Impact and Effectiveness of the Single Market*, Brussels, 1996.
6. European Commission, *White Paper on growth, competitiveness, and employment: The challenges and ways forward into the 21st century*, Brussels, 1993.
7. Linad, Hantrais, *Social Policy in the European Union*, St. Martin's Press, New York, 1995.
8. Miroslav N, Jovanovic., *European Economic Integration – Limits and Prospects*, New York: Routledge, 1995.
9. OECD, *Knowledge, Work Organization and Economic Growth*, Paris, 2001.
10. Jones, Robert A., *The Politics and Economics of the European Union: an introductory text*, UK: Edward Elgar, 2001.
11. Webster, Frank, *Theories of the Information society*, London: Routledge, 1995.

### B. Websites

1. European Commission , *Information Society - eEurope 2005*, 2005a, [http://europa.eu.int/information\\_society/eeurope/2005/index\\_en.htm](http://europa.eu.int/information_society/eeurope/2005/index_en.htm).
2. European Commission, *Information Society Policies at a Glance*,

2005b, [http://europa.eu.int/information\\_society/policy/index\\_en.htm](http://europa.eu.int/information_society/policy/index_en.htm).

## **The Emergence of “e-Europe” from the Basis of Information Society in EU**

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### **Abstract**

Due to the rapid improvement of technology, globalized societies have been changing swiftly and dramatically. Information society becomes an issue nowadays, especially in European Union.

In order to explore the connection between information society and e-Europe, three main ideas would be discussed in this study. Firstly, the theory of information society and policies of information society in European Union would be discussed. Secondly, there will an analysis: transitional process of European economy was changed from the single market to “e-Europe”; furthermore, the white Paper of European Union related to e-Europe will be represented. Finally, it will explain that “e-Europe” was emerged in order to upgrade and improve European Union’s economy.

This study will focus on analyses on the related issues of information society and e-Europe, as well as discuss their economic impacts and development.

**Key Words:** EU, e-Europe, Information Society, Single Market

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