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## **Information technology in a global society**

### **Case study: Our social media lives**

For use in November 2021, May 2022 and November 2022

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#### **Instructions to candidates**

- Case study booklet required for higher level paper 3 information technology in a global society examinations.

## Foreword

The ITGS case study, *Our social media lives*, is the stimulus material for the research investigation required for November 2021, May 2022 and November 2022 higher level paper 3. All of the work related to the case study should reflect the integrated approach explained on pages 15–17 of the ITGS guide.

Candidates should consider *Our social media lives* with respect to:

- relevant IT systems in a social context
- both local and global areas of impact
- social and ethical impacts on individuals and societies
- current challenges and solutions
- future developments.

Candidates are expected to research real-life situations similar to *Our social media lives* and relate their findings to first-hand experiences wherever possible. Information may be collected through a range of activities: secondary and primary research, field trips, guest speakers, personal interviews and email correspondence.

Responses to examination questions **must** reflect the synthesis of knowledge and experiences that the candidates have gained from their investigations. In some instances, additional information may be provided in examination questions to allow candidates to generate new ideas.

## Overview

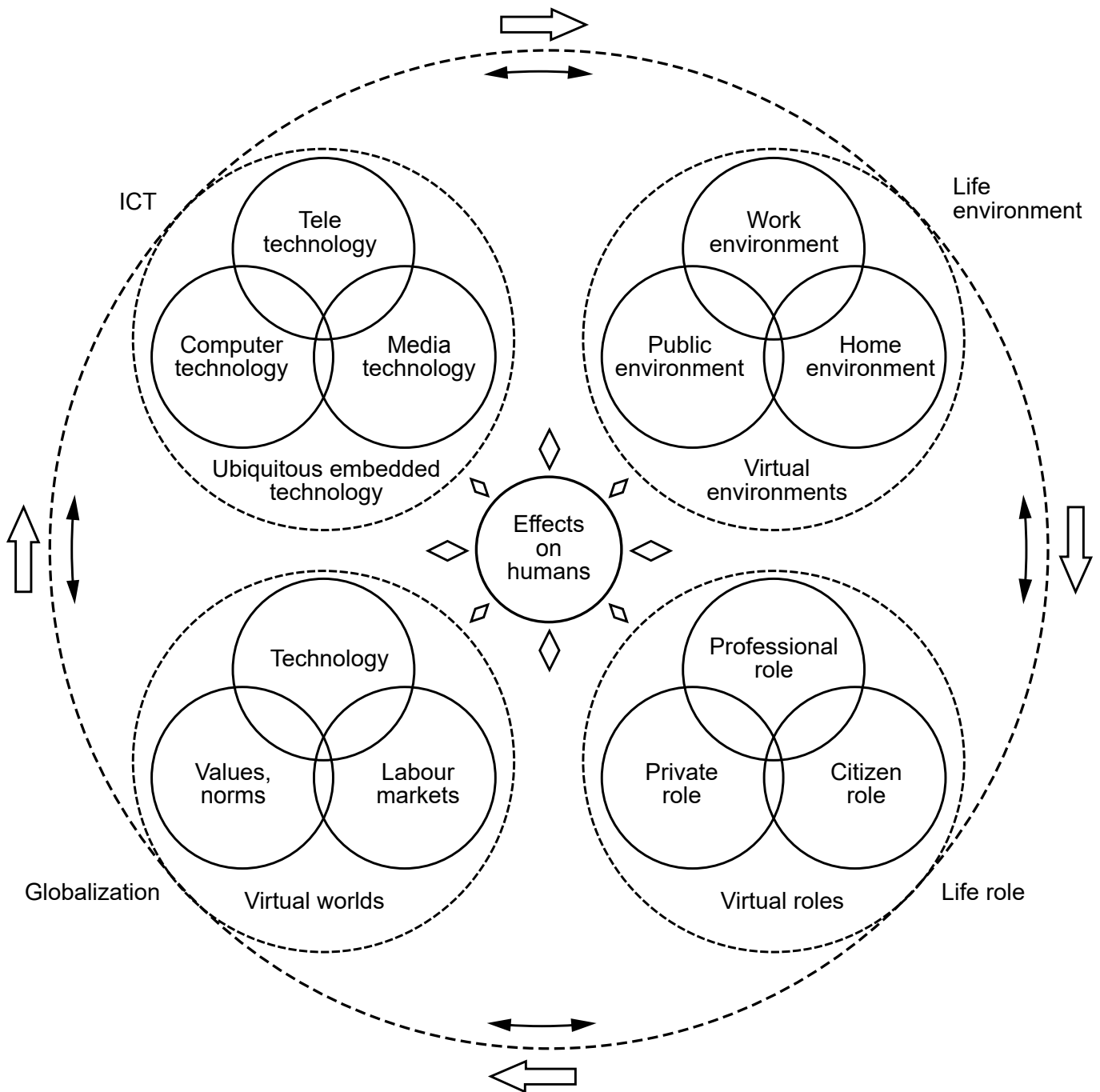
In 2010, the *Journal for a Global Sustainable Information Society* published a seminal paper by Gunilla Bradley, *The convergence theory on ICT, society and human beings – towards the good ICT society*, that stated, "... many conferences world wide are not paying much attention to the fact that all technology is *for* humans and should facilitate and improve our wellbeing and quality of life".

Over the last fifteen years, social media has become an integral part of society. This case study explores the extent to which social media has improved our wellbeing and considers the challenges that it poses.

10 The Bradley convergence model shown in **Figure 1** is based on the idea that our digital lives have four interacting constituents – ICT, life environment, globalization, and life role – with each being addressed on an individual, organizational, community or global level. The two underlying principles of this model are convergence – the blurring of roles largely as a result of the increasingly ubiquitous nature of digital technologies – and acceleration. In the convergence model, interaction between the various constituents and their parts is shown by the arrows. It also shows how humans influence, and are influenced by, each constituent of the model.

This model can be applied to many uses of digital technologies. However, in this case study it is used to investigate the impacts of social media. It will examine this new way of life using the example of one family before engaging in a wider discussion that explores the opportunities and costs of social media on a number of levels.

Figure 1: The Bradley convergence model



**Scenario**

The Ramos family consists of Jaime and Maria and their three children, Laura, Daniela and Hugo. They are from a large city in South America.

25 Jaime is the principal at a local high school. He uses social media platforms for both professional and personal purposes. He maintains his professional learning network (PLN) on these platforms, while in his personal life he uses them to promote his motorbike racing club and to discuss and plan activities for its members.

30 Maria has recently retired and is time-rich. She uses social media to interact with people who share her interests and to follow her many relatives. Some of her social media activities use private communication platforms, while others are public and allow her to interact with the wider community.

35 Laura, the eldest child, is a millennial, and currently lives in a city in Asia. Her work requires her to travel extensively and she uses company-approved social media platforms to collaborate with her global team. However, she has faced challenges in accessing these platforms in some countries. Laura is trying to achieve a healthy work–life balance by keeping her work and personal online environments separate. She is in the process of detoxing from using social media in her personal life in order to control her digital footprint.

40 Daniela, the middle child, is a university student studying in North America and is a singer-songwriter. She promotes her work through social media and regularly collaborates with other musicians, who in turn promote her through their own social media channels. So far, reviews of her work have generally been very good. Daniela is time-poor and rarely watches the news on television or reads newspapers. She usually uses her social media platforms to keep up with the news and express her opinions.

45 Hugo, the youngest child, is an IB Diploma student and the editor of his school’s magazine. He uses social media and communication tools in all aspects of his life. This includes writing for the school magazine, keeping in touch with his friends and managing his digital footprint to help with his applications for university.

The evolution of digital technologies and the increasing use of social media has created many opportunities and challenges on individual, organizational, community and global levels.

## 50 **Challenges faced**

The ubiquitous nature of social media can be seen as one of the main reasons for the convergence of the various parts of our digital lives. The Bradley convergence model in **Figure 1** should be used in conjunction with the challenges identified in this case study to explore the positive and negative impacts of social media on a variety of stakeholders and a range of levels.

- The impact of social media on the health and wellbeing of individuals.
- The management of an individual’s digital footprint.
- The tendency for individuals to obtain news from social media.
- The subcultures that exist on social media.
- 60 • The equality of access to, and within, digital spaces.
- Balancing the available bandwidth with the increasing demand for social media services.
- The use of ethical practices by both producers and consumers.
- Social media companies’ use of customer data for marketing purposes.
- Technical challenges encountered on individual, organizational, community and global levels.
- 65 • Governments, citizens and social media companies needing to address issues like privacy and data sharing.

The 2021 case study has taken a different approach to previous years. These differences are outlined below.

### **Technological background**

70 The underlying technology involved with social media is usually, and intentionally, not apparent to the user other than the devices that connect to the internet. It is not necessary to go beyond an understanding of the technical terms in the additional terminology section.

### **Additional terminology**

75 Many of these terms are not explicitly stated in the case study but are included to provide teachers and students with areas to explore within the contexts of the challenges faced.

## **Additional terminology**

Algorithmic bias  
Bandwidth  
Behavioural and profile data  
Bradley convergence model  
Data monetization  
Digital detox  
Digital footprint – active and passive  
Digital subcultures  
Echo chamber  
Fear of missing out (FOMO)  
Filter bubble  
Hash tags  
Influencer  
Morals vs ethics  
Net neutrality  
Professional learning network (PLN)  
Privacy principles  
Privacy settings  
Right to be forgotten  
Single sign-on  
Social media addiction  
Targeted advertising  
Tele-technology – use of digital technology to communicate and interact over distance  
Ubiquitous (ubiquity) computing

Any individuals named in this case study are fictitious and any similarities with actual entities are purely coincidental.

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**References:**

**Quotation** Bradley, G., 2010. The convergence theory on ICT, society and human beings – towards the good ICT society. *Journal for a Global Sustainable Information Society*, 8(2), pp. 183–192. The convergence model is fully described in Gunilla Bradley’s latest book “THE GOOD ICT SOCIETY - From Theory to Actions” (2017) 138 pp. hard cover, paper back, e-book with 27 colored illustrations! (Routledge).

**Figure 1** Bradley, G., 2001. Information and communication technology (ICT) and humans: how we will live, learn and work. In G. Bradley ed. 2001. *Humans on the net: information and communication technology (ICT) work organization and human beings*. Stockholm: Prentice. pp. 22–44. The convergence model is fully described in Gunilla Bradley’s latest book “THE GOOD ICT SOCIETY - From Theory to Actions” (2017) 138 pp. hard cover, paper back, e-book with 27 colored illustrations! (Routledge).