根據市場預測，全球智慧紡織品市場規模將從2015年的1億美元成長到2026年的約30億美元According to market forecasts, the global market for smart textiles will grow from USD 0.1 billion in 2015 to about USD 3 billion by 2026 [8] [8]by Textile Learning Factory 4.0 – Preparing Germany’s Textile Industry for the Digital Future這篇(2017) Dennis Küstersª\*, Nicolina Praßᵇ, Yves-Simon Gloya

【智慧紡織要實現，分散的供應鏈必須連通】為了實現智慧紡織品的大批量生產並釋放其潛力，混合且通常高度分散的紡織價值鏈必須日益互聯互通In order to produce smart textile products in large series or mass production scale and to unlock this potential, the hybrid and typically highly fragmented textile value chains will have to become increasingly interconnected. by Textile Learning Factory 4.0 – Preparing Germany’s Textile Industry for the Digital Future這篇(2017) Dennis Küstersª\*, Nicolina Praßᵇ, Yves-Simon Gloya

【實施困境、資金、知識】大多數企業由於嚴重的實施障礙（包括財務效益的不確定性以及專業知識的缺乏）而對啟動數位轉型進程猶豫不決However, the majority of companies are hesitant to begin their digital transformation processes due to serious implementation barriers that include uncertainties regarding financial benefits and a lack of specialist knowledge by Textile Learning Factory 4.0 – Preparing Germany’s Textile Industry for the Digital Future這篇(2017) Dennis Küstersª\*, Nicolina Praßᵇ, Yves-Simon Gloya🡪導入我們的平台可以這兩個問題，簡單方便的方式就可以數位轉型第一步

IS play a critical role in developing sense and respond capabilities  
IS 在發展感知和回應能力方面發揮關鍵作用.來自Digital innovation: A review and synthesis [Rajiv Kohli](https://onlinelibrary.wiley.com/authored-by/Kohli/Rajiv), [Nigel P. Melville](https://onlinelibrary.wiley.com/authored-by/Melville/Nigel+P.)2018

【探索與開發exploitation是對已經在使用的現有 IS 進行創造性的新用途Another view is that exploitation results from creative new uses of existing IS already in use.來自Digital innovation: A review and synthesis [Rajiv Kohli](https://onlinelibrary.wiley.com/authored-by/Kohli/Rajiv), [Nigel P. Melville](https://onlinelibrary.wiley.com/authored-by/Melville/Nigel+P.)2018】

可以補充這一句【利用是指利用現有系統和資料來源來產生新的創新Exploitation refers to leveraging existing systems and data sources to generate new】來自(Digital innovation: A review and synthesis [Rajiv Kohli](https://onlinelibrary.wiley.com/authored-by/Kohli/Rajiv), [Nigel P. Melville](https://onlinelibrary.wiley.com/authored-by/Melville/Nigel+P.)2018)

【商業機密的文化】除了組織本身之外，文化和國家背景也影響著 IS 所推動的組織變革努力（Avgerou， [**2001**](https://onlinelibrary.wiley.com/doi/full/10.1111/isj.12193#isj12193-bib-0010) ；Avgerou， [**2008**](https://onlinelibrary.wiley.com/doi/full/10.1111/isj.12193#isj12193-bib-0011) ；Melville， [**2010**](https://onlinelibrary.wiley.com/doi/full/10.1111/isj.12193#isj12193-bib-0080) ） Moving beyond the organization itself, the cultural and national context also shapes IS-enabled organizational change efforts (Avgerou, [**2001**](https://onlinelibrary.wiley.com/doi/full/10.1111/isj.12193#isj12193-bib-0010); Avgerou, [**2008**](https://onlinelibrary.wiley.com/doi/full/10.1111/isj.12193#isj12193-bib-0011); Melville, [**2010**](https://onlinelibrary.wiley.com/doi/full/10.1111/isj.12193#isj12193-bib-0080))來自Digital innovation: A review and synthesis [Rajiv Kohli](https://onlinelibrary.wiley.com/authored-by/Kohli/Rajiv), [Nigel P. Melville](https://onlinelibrary.wiley.com/authored-by/Melville/Nigel+P.)2018

**【這句好適合用來形容frontier】Organizations are knowledge-generating entities that draw learning from inside and outside their organization and apply it to foster effective initiation and may inoculate against fads and fashions.組織是知識生成實體，它從組織內部和外部汲取知識，並將其應用於促進有效的創新，並可能抵禦時尚和潮流。來自Digital innovation: A review and synthesis Rajiv Kohli, Nigel P. Melville2018**

疫情壓力，與這一段論文的發現有關【高層管理人員的支持、外部壓力和組織規模似乎最具預測性。總體而言，這項發現意味著這 3 個變數最有可能預測一個組織是否採用特定的 IT。Regarding which specific characteristics appear to matter and which ones do not, top management support, external pressure, and organizational size appear to be most predictive, based on meta-analysis of 47 adoption correlates within 51 articles (Jeyaraj et al., [**2006**](https://onlinelibrary.wiley.com/doi/full/10.1111/isj.12193#isj12193-bib-0055)). Overall, this finding means that these 3 variables are the most likely to predict whether an organization adopts a given IT.來自**Digital innovation: A review and synthesis** [**Rajiv Kohli**](https://onlinelibrary.wiley.com/authored-by/Kohli/Rajiv)**,**[**Nigel P. Melville**](https://onlinelibrary.wiley.com/authored-by/Melville/Nigel+P.)**2018**】

系統設計是一個持續、反覆的過程，而不是有一個明確的開始和結束。This suggests that system design is an ongoing and iterative process rather than having a clear beginning and end. 來自Digital innovation: A review and synthesis [Rajiv Kohli](https://onlinelibrary.wiley.com/authored-by/Kohli/Rajiv), [Nigel P. Melville](https://onlinelibrary.wiley.com/authored-by/Melville/Nigel+P.)2018

【異業結盟可以用這句Dyer、Gregersen 和 Christensen（ [**2011**](https://onlinelibrary.wiley.com/doi/full/10.1111/isj.12193#isj12193-bib-0034) ）利用顛覆性創新的理論基礎（Christensen & Raynor， [**2003**](https://onlinelibrary.wiley.com/doi/full/10.1111/isj.12193#isj12193-bib-0023) ）提出，創新技能可以透過建構包含來自不相關領域的問題、難題和想法之間的關聯或連結在內的能力來學習，並透過建構提供新機會的互動體驗進行實驗來自Digital innovation: A review and synthesis [Rajiv Kohli](https://onlinelibrary.wiley.com/authored-by/Kohli/Rajiv), [Nigel P. Melville](https://onlinelibrary.wiley.com/authored-by/Melville/Nigel+P.)2018】

【可以放進文獻裡面】Knowledge sharing among partners, internal and external, leads to greater recognition of exploit opportunities內部和外部合作夥伴之間的知識共享有助於更好地認識開發機會來自Digital innovation: A review and synthesis [Rajiv Kohli](https://onlinelibrary.wiley.com/authored-by/Kohli/Rajiv), [Nigel P. Melville](https://onlinelibrary.wiley.com/authored-by/Melville/Nigel+P.)2018

以下診斷工具我覺得可以放進去跨階段分析來自Digital innovation strategy: A framework for diagnosing and improving digital product and service innovation(2015) 數位創新策略：診斷和改進數位產品和服務創新的框架Daniel Nylé, Jonny Holmström

1. First, digital products and services must not only be efficient to use and easy to learn, but also provide a rich [*user experience*](https://www.sciencedirect.com/topics/computer-science/user-experience). Such user experience can be measured on its levels of usability, aesthetics, and engagement.首先，數位產品和服務不僅要有效率地使用、易於學習，還要提供豐富的[*使用者體驗*](https://www.sciencedirect.com/topics/computer-science/user-experience)。這種用戶體驗可以透過其可用性、美觀性和參與度來衡量。
2. Second, firms need to clearly articulate the *value proposition* of each digital product and service: How do they create value for the users? The quality of such value propositions is assessed on the dynamics of customer segmentation, product and service bundling, and commissions to channel owners.其次，公司需要清楚地闡明每種數位產品和服務的*價值主張*：它們如何為使用者創造價值？此類價值主張的品質是根據客戶細分、產品和服務捆綁以及通路所有者佣金的動態來評估的。(我感覺這邊可以說銷售那段的根據客戶細分)
3. Third, *digital evolution scanning* involves gathering intelligence on new devices; [digital channels](https://www.sciencedirect.com/topics/psychology/digital-channel) such as web services, [mobile operating systems](https://www.sciencedirect.com/topics/computer-science/mobile-operating-system), and social media; and app stores—as well as standards and APIs—in order to identify and exploit opportunities for innovation across emerging use contexts and new [user behaviors](https://www.sciencedirect.com/topics/social-sciences/user-behaviour).  
   第三，*數位演進掃描*涉及收集有關新設備的情報； 網路服務、[行動作業系統](https://www.sciencedirect.com/topics/computer-science/mobile-operating-system" \o "Learn more about mobile operating systems from ScienceDirect's AI-generated Topic Pages)和社交媒體等[數位管道](https://www.sciencedirect.com/topics/psychology/digital-channel)；和應用程式商店以及標準和 API，以便在新興使用環境和新[用戶行為](https://www.sciencedirect.com/topics/social-sciences/user-behaviour)中識別和利用創新機會。
4. Fourth, as digital innovation requires new *skills*, firms need to evaluate their mechanisms for supporting continuous learning of the unique properties of digital technologies in order to set up dynamic innovation teams.第四，由於數位創新需要新*技能*，企業需要評估其支持持續學習數位技術獨特屬性的機制，以建立充滿活力的創新團隊。
5. Fifth—and finally—as digital innovation processes are often ignited when organizational members extemporize with digital technology in a learning-by-doing fashion, assessing the available space and time for *improvisation* and the mechanisms for coordinating such efforts is key.第五，也是最後一點，由於數位創新過程通常是在組織成員以邊做邊學的方式運用數位技術時被激發的，因此評估可用的*即興發揮*的空間和時間以及協調此類努力的機制是關鍵。

【數位的特性】可塑性（例如可重新編程性）、同質性（例如標準化軟體語言）和可轉移性（例如易於轉移任何物件的數位表示）是融合數位*和*物理物質性的技術的核心，從而實現、限制人類行為，同時也與人類行為交織在一起The malleability (e.g., re-programmability), homogeneity (e.g., standardized software languages) and transferability (e.g. ease of transferring digital representations of any object) is at the heart of technologies meshing digital, *and* often physical materiality, thereby enabling, constraining, but also interwoven with, human action

【數位的特性】【數位的特性：可塑性】這種快速發展得益於數位技術的可塑性：即易於重新配置Ultimately this rapid pace is enabled by the malleability of digital technologies: the ease with which they can be reconfigured來自 Digital innovation strategy: A framework for diagnosing and improving digital product and service innovation(2015)

【數位特性】數位技術的基本獨特屬性包括可塑性:可重新編程功能（由馮諾依曼架構實現）和資料同質化(homogenization)（由 0 和 1 位元離散表示資料實現）The fundamental, unique properties of digital technology include reprogrammable functionality (enabled by its Von Neumann architecture) and data homogenization (enabled by discrete representation of data in bits of 0 and 1) (**[Yoo et al. 2010](https://pubsonline.informs.org/doi/full/10.1287/orsc.1120.0771" \l "B77)**)來自Yoo Y, Henfridsson O, Lyytinen K. (2010) The new organizing logic of digital innovation: An agenda for information systems research. *Inform. Systems Res.* 21(4) :724–735.

【徵用會出現新市場】數位化演進掃描涉及**觀察新的使用者*行為****，*隨著用戶有時會意外地將數位技術應用到新的使用環境中，新的市場就會出現。徵用就是新市場的擴增開端Finally, digital evolution scanning involves observing new user *behaviors*. To this end, new markets can emerge as users sometimes unexpectedly adopt a digital technology into a new use context.來自 Digital innovation strategy: A framework for diagnosing and improving digital product and service innovation(2015)

【數位創新既依賴路徑，又具有突破性】解決方案對也可以被賦予記憶，例如對先前耦合的記憶。這使得創新既依賴路徑，又具有突破性。例如，開發人員可以使用google mapAPI在網站上插入一個提供行車路線的地圖鏈接，以解決導航問題。新的開發人員可能會在同一個應用程式中添加新功能，例如警察目擊資訊或施工警告，以解決不同的問題（例如避開超速陷阱）。每一次演進都將對過去的記憶與新的獨特的問題-解決方案對融合在一起。ByService innovation R. F. Lusch and S. Nambisan(2015) solution pairs can also be imbued with memory, such as memory of earlier couplings. This allows innovation to be simultaneously path dependent and path breaking. For example, a developer can use a Google Maps API to insert a link to a map providing driving directions on a website to solve the problem of navigation. A new developer may take the same app and add new features such as police sightings or construction warnings to address a different problem (of avoiding speed traps). Each evolution incorporates the memory of what has gone before with a new distinct problem solution pair

【作者引用別人說的話來強調：數位平台創造雙邊市場】

數位平台透過交易這個價值創造機制，幫助互補者和消費者相互定位、互動，以互惠互利的方式交換價值。數位平台充當中介，直接配對供給和需求並提出可能的交易，或提供易於使用的搜尋功能，讓用戶找到交易夥伴。透過協調交易，數位平台創造了雙邊市場（Armstrong [2006](https://link.springer.com/article/10.1007/s12525-019-00377-4#ref-CR3) ；Rochet and Tirole [2003](https://link.springer.com/article/10.1007/s12525-019-00377-4#ref-CR71) ），利用了跨邊網路效應。例如，Airbnb 是一個數位平台，旨在促進業主和尋找臨時住宿的人之間的交易。這個數位平台幫助業主宣傳他們的住宿，並為尋找住宿的用戶提供精細的搜尋功能。每次新上市都會利用規模經濟和替代經濟，增加平台的價值，使其成為超模組化互補，從而引發供需之間的網路效應。With the first value-creating mechanism of transactions, digital platforms help complementors and consumers locate and interact with each other and exchange value in a mutually beneficial manner (Evans [2012](https://link.springer.com/article/10.1007/s12525-019-00377-4#ref-CR27)). The digital platform acts as an intermediary by directly matching supply to demand and suggesting possible transactions or by providing easy-to-use search functions through which users can find transaction partners. Via the orchestration of transactions, digital platforms create two-sided markets (Armstrong [2006](https://link.springer.com/article/10.1007/s12525-019-00377-4#ref-CR3); Rochet and Tirole [2003](https://link.springer.com/article/10.1007/s12525-019-00377-4#ref-CR71)) that leverage cross-side network effects. For example, Airbnb is a digital platform that facilitates transactions between property owners and people looking for temporary accommodations. The digital platform helps owners advertise their accommodations and offers a fine-tuned search functionality for users looking for a place to stay. Each new listing utilizes economies of scale and substitution and increases the value of the platform, making it a supermodular complementarity that induces network effects between supply and demand.【再用我的數位平台來解釋自己的版本】

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