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الإعلام العربي وقضايا العولمة



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د. عواطف عبد الرحمن

الإعلام العربي وقضايا العولمة

د. عواطف عبد الرحمن

طبقا لقوانين الملكية الفكرية

جميع حقوق النشر و التوزيع الالكتروني
لهذا المصنف محفوظة لكتب عربية. يحظر
نقل أو إعادة نسخ أو إعادة بيع أى جزء من
هذا المصنف و بثه الكترونيا (عبر الانترنت أو
للمكتبات الالكترونية أو الأقراص المدمجة أو أى
وسيلة أخرى) دون الحصول على إذن كتابي من
كتب عربية. حقوق الطبع الورقى محفوظة
للمؤلف أو ناشره طبقا للتعاقدات السارية.

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**الإعلام وتحديات الهندسة
الوراثية في القرن
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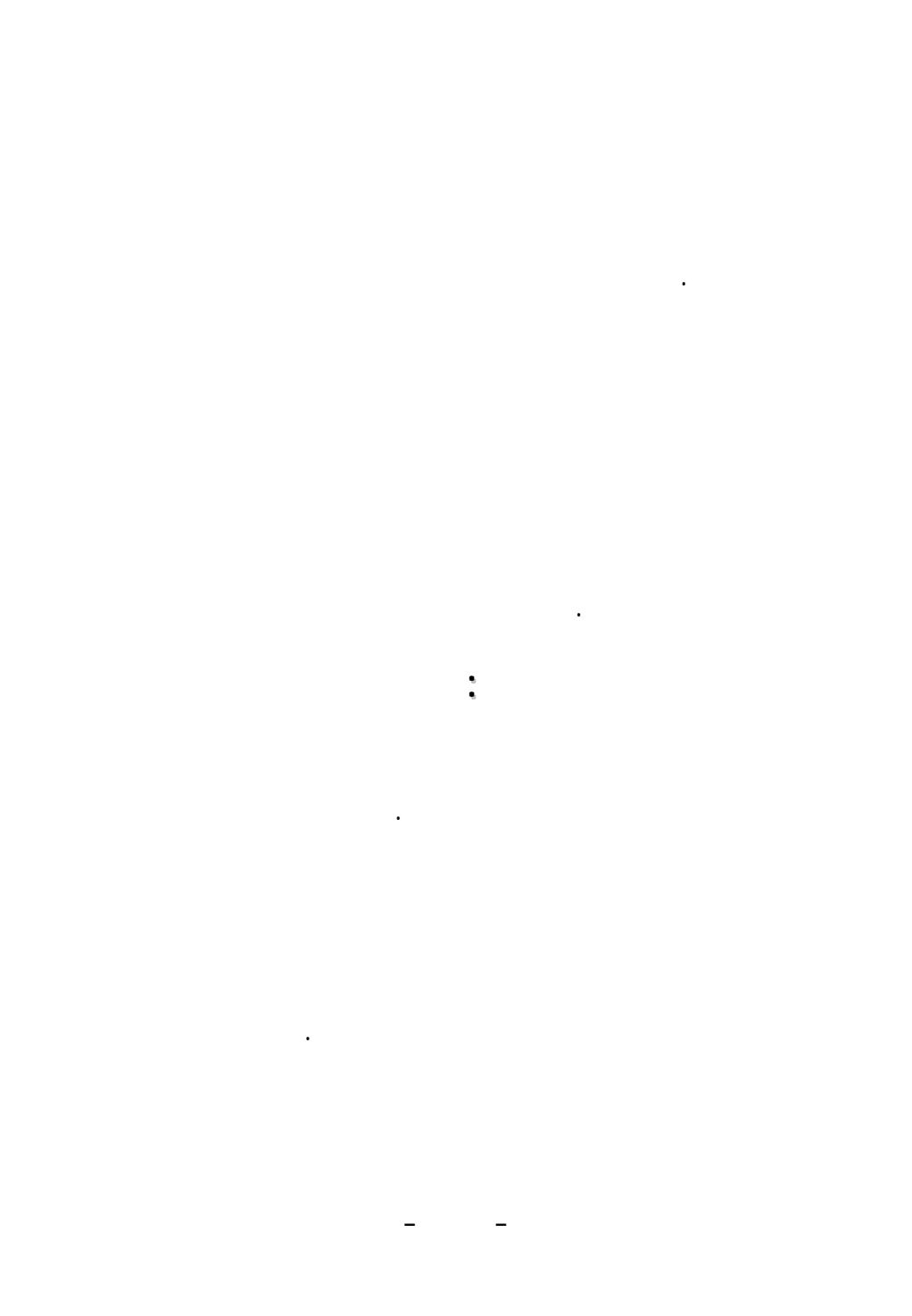
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• $\frac{1}{4} \times \frac{1}{4} = \frac{1}{16}$ $\frac{1}{4} \times \frac{1}{8} = \frac{1}{32}$ $\frac{1}{4} \times \frac{1}{16} = \frac{1}{64}$
• $\frac{1}{8} \times \frac{1}{8} = \frac{1}{64}$ $\frac{1}{8} \times \frac{1}{16} = \frac{1}{128}$ $\frac{1}{8} \times \frac{1}{32} = \frac{1}{256}$
• $\frac{1}{16} \times \frac{1}{16} = \frac{1}{256}$ $\frac{1}{16} \times \frac{1}{32} = \frac{1}{512}$ $\frac{1}{16} \times \frac{1}{64} = \frac{1}{1024}$
• $\frac{1}{32} \times \frac{1}{32} = \frac{1}{1024}$ $\frac{1}{32} \times \frac{1}{64} = \frac{1}{2048}$ $\frac{1}{32} \times \frac{1}{128} = \frac{1}{4096}$
• $\frac{1}{64} \times \frac{1}{64} = \frac{1}{4096}$ $\frac{1}{64} \times \frac{1}{128} = \frac{1}{8192}$ $\frac{1}{64} \times \frac{1}{256} = \frac{1}{16384}$
• $\frac{1}{128} \times \frac{1}{128} = \frac{1}{16384}$ $\frac{1}{128} \times \frac{1}{256} = \frac{1}{32768}$ $\frac{1}{128} \times \frac{1}{512} = \frac{1}{65536}$
• $\frac{1}{256} \times \frac{1}{256} = \frac{1}{65536}$ $\frac{1}{256} \times \frac{1}{512} = \frac{1}{131072}$ $\frac{1}{256} \times \frac{1}{1024} = \frac{1}{262144}$
• $\frac{1}{512} \times \frac{1}{512} = \frac{1}{262144}$ $\frac{1}{512} \times \frac{1}{1024} = \frac{1}{524288}$ $\frac{1}{512} \times \frac{1}{2048} = \frac{1}{1048576}$
• $\frac{1}{1024} \times \frac{1}{1024} = \frac{1}{1048576}$ $\frac{1}{1024} \times \frac{1}{2048} = \frac{1}{2097152}$ $\frac{1}{1024} \times \frac{1}{4096} = \frac{1}{4194304}$
• $\frac{1}{2048} \times \frac{1}{2048} = \frac{1}{4194304}$ $\frac{1}{2048} \times \frac{1}{4096} = \frac{1}{8388608}$ $\frac{1}{2048} \times \frac{1}{8192} = \frac{1}{16777216}$
• $\frac{1}{4096} \times \frac{1}{4096} = \frac{1}{16777216}$ $\frac{1}{4096} \times \frac{1}{8192} = \frac{1}{33554432}$ $\frac{1}{4096} \times \frac{1}{16384} = \frac{1}{67108864}$
• $\frac{1}{8192} \times \frac{1}{8192} = \frac{1}{67108864}$ $\frac{1}{8192} \times \frac{1}{16384} = \frac{1}{134217728}$ $\frac{1}{8192} \times \frac{1}{32768} = \frac{1}{268435456}$
• $\frac{1}{16384} \times \frac{1}{16384} = \frac{1}{268435456}$ $\frac{1}{16384} \times \frac{1}{32768} = \frac{1}{536870912}$ $\frac{1}{16384} \times \frac{1}{65536} = \frac{1}{1073741824}$
• $\frac{1}{32768} \times \frac{1}{32768} = \frac{1}{1073741824}$ $\frac{1}{32768} \times \frac{1}{65536} = \frac{1}{2147483648}$ $\frac{1}{32768} \times \frac{1}{131072} = \frac{1}{4294967296}$
• $\frac{1}{65536} \times \frac{1}{65536} = \frac{1}{4294967296}$ $\frac{1}{65536} \times \frac{1}{131072} = \frac{1}{8589934592}$ $\frac{1}{65536} \times \frac{1}{262144} = \frac{1}{17179869184}$
• $\frac{1}{131072} \times \frac{1}{131072} = \frac{1}{17179869184}$ $\frac{1}{131072} \times \frac{1}{262144} = \frac{1}{34359738368}$ $\frac{1}{131072} \times \frac{1}{524288} = \frac{1}{68719476736}$
• $\frac{1}{262144} \times \frac{1}{262144} = \frac{1}{68719476736}$ $\frac{1}{262144} \times \frac{1}{524288} = \frac{1}{137438953472}$ $\frac{1}{262144} \times \frac{1}{1048576} = \frac{1}{274877906944}$
• $\frac{1}{524288} \times \frac{1}{524288} = \frac{1}{274877906944}$ $\frac{1}{524288} \times \frac{1}{1048576} = \frac{1}{549755813888}$ $\frac{1}{524288} \times \frac{1}{2097152} = \frac{1}{1099511627776}$
• $\frac{1}{1048576} \times \frac{1}{1048576} = \frac{1}{1099511627776}$ $\frac{1}{1048576} \times \frac{1}{2097152} = \frac{1}{2199023255552}$ $\frac{1}{1048576} \times \frac{1}{4194304} = \frac{1}{4398046511104}$
• $\frac{1}{2097152} \times \frac{1}{2097152} = \frac{1}{4398046511104}$ $\frac{1}{2097152} \times \frac{1}{4194304} = \frac{1}{8796093022208}$ $\frac{1}{2097152} \times \frac{1}{8388608} = \frac{1}{17592186044416}$
• $\frac{1}{4194304} \times \frac{1}{4194304} = \frac{1}{17592186044416}$ $\frac{1}{4194304} \times \frac{1}{8388608} = \frac{1}{35184372088832}$ $\frac{1}{4194304} \times \frac{1}{16777216} = \frac{1}{70368744177664}$
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• $\frac{1}{16777216} \times \frac{1}{16777216} = \frac{1}{281474976710656}$ $\frac{1}{16777216} \times \frac{1}{33554432} = \frac{1}{562949953421312}$ $\frac{1}{16777216} \times \frac{1}{67108864} = \frac{1}{1125899906842624}$
• $\frac{1}{33554432} \times \frac{1}{33554432} = \frac{1}{1125899906842624}$ $\frac{1}{33554432} \times \frac{1}{67108864} = \frac{1}{2251799813685248}$ $\frac{1}{33554432} \times \frac{1}{134217728} = \frac{1}{4503599627370496}$
• $\frac{1}{67108864} \times \frac{1}{67108864} = \frac{1}{4503599627370496}$ $\frac{1}{67108864} \times \frac{1}{134217728} = \frac{1}{9007199254740992}$ $\frac{1}{67108864} \times \frac{1}{268435456} = \frac{1}{18014398509481984}$
• $\frac{1}{134217728} \times \frac{1}{134217728} = \frac{1}{18014398509481984}$ $\frac{1}{134217728} \times \frac{1}{268435456} = \frac{1}{36028797018963968}$ $\frac{1}{134217728} \times \frac{1}{536870912} = \frac{1}{72057594037927936}$
• $\frac{1}{268435456} \times \frac{1}{268435456} = \frac{1}{72057594037927936}$ $\frac{1}{268435456} \times \frac{1}{536870912} = \frac{1}{144115188075855872}$ $\frac{1}{268435456} \times \frac{1}{1073741824} = \frac{1}{288230376151711744}$
• $\frac{1}{536870912} \times \frac{1}{536870912} = \frac{1}{288230376151711744}$ $\frac{1}{536870912} \times \frac{1}{1073741824} = \frac{1}{576460752303423488}$ $\frac{1}{536870912} \times \frac{1}{2147483648} = \frac{1}{1152921504606846976}$
• $\frac{1}{1073741824} \times \frac{1}{1073741824} = \frac{1}{1152921504606846976}$ $\frac{1}{1073741824} \times \frac{1}{2147483648} = \frac{1}{2305843009213693952}$ $\frac{1}{1073741824} \times \frac{1}{4294967296} = \frac{1}{4611686018427387904}$
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• $\frac{1}{8449934592} \times \frac{1}{8449934592} = \frac{1}{73786976294838206464}$ $\frac{1}{8449934592} \times \frac{1}{16899869184} = \frac{1}{147573952589676412928}$ $\frac{1}{8449934592} \times \frac{1}{33799738368} = \frac{1}{295147905179352825856}$
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• $\frac{1}{33799738368} \times \frac{1}{33799738368} = \frac{1}{1180591620717411303424}$ $\frac{1}{33799738368} \times \frac{1}{67599476736} = \frac{1}{2361183241434822606848}$ $\frac{1}{33799738368} \times \frac{1}{135198953472} = \frac{1}{4722366482869645213696}$
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• $\frac{1}{27688745670100143832477952} \times \frac{1}{27688745670100143832477952} = \frac{1}{79228162514264337593543950336}$ $\frac{1}{27688745670100143832477952} \times \frac{1}{55377491340200287664955904} = \frac{1}{158456325028528675187087900672}$ $\frac{1}{27688745670100143832477952} \times \frac{1}{110754982680400575374111801344} = \frac{1}{316912650057057350374175802688}$
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• $\frac{1}{110754982680400575374111801344} \times \frac{1}{110754982680400575374111801344} = \frac{1}{1267650600228229401496703210752}$ $\frac{1}{110754982680400575374111801344} \times \frac{1}{221509965360801150748223602688} = \frac{1}{2535301200456458802993406421504}$ $\frac{1}{110754982680400575374111801344} \times \frac{1}{4430199307216023014964472043008} = \frac{1}{5070602400912917605986812043008}$
• $\frac{1}{221509965360801150748223602688} \times \frac{1}{221509965360801150748223602688} = \frac{1}{5070602400912917605986812043008}$ $\frac{1}{221509965360801150748223602688} \times \frac{1}{4430199307216023014964472043008} = \frac{1}{10141204801825835211973624086016}$ $\frac{1}{221509965360801150748223602688} \times \frac{1}{8860398614432046029928944086016} = \frac{1}{20282409603651670423947248172032}$
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• $\frac{1}{8860398614432046029928944086016} \times \frac{1}{8860398614432046029928944086016} = \frac{1}{81129638414606681695789792688128}$ $\frac{1}{8860398614432046029928944086016} \times \frac{1}{17720797228864092059857888172032} = \frac{1}{162259276829213363391579585376256}$ $\frac{1}{8860398614432046029928944086016} \times \frac{1}{35441595457728184118715917172032} = \frac{1}{324518553658426726783159143152512}$
• $\frac{1}{17720797228864092059857888172032} \times \frac{1}{17720797228864092059857888172032} = \frac{1}{324518553658426726783159143152512}$ $\frac{1}{17720797228864092059857888172032} \times \frac{1}{35441595457728184118715917172032} = \frac{1}{649037107316853453566318286305024}$ $\frac{1}{17720797228864092059857888172032} \times \frac{1}{708835909154563682354316572600048} = \frac{1}{1298074214633706907132637145200096}$
• $\frac{1}{35441595457728184118715917172032} \times \frac{1}{35441595457728184118715917172032} = \frac{1}{1298074214633706907132637145200096}$ $\frac{1}{35441595457728184118715917172032} \times \frac{1}{708835909154563682354316572600048} = \frac{1}{2596148429267413814265274290400192}$ $\frac{1}{35441595457728184118715917172032} \times \frac{1}{1417671818309127364708634145200096} = \frac{1}{5192296858534827628530548580800384}$
• $\frac{1}{708835909154563682354316572600048} \times \frac{1}{708835909154563682354316572600048} = \frac{1}{5192296858534827628530548580800384}$ $\frac{1}{708835909154563682354316572600048} \times \frac{1}{1417671818309127364708634145200096} = \frac{1}{10384593717069655257061097161600768}$ $\frac{1}{708835909154563682354316572600048} \times \frac{1}{28353436366182547294172182904001536} = \frac{1}{20769187434139310514122185808003136}$
• $\frac{1}{1417671818309127364708634145200096} \times \frac{1}{1417671818309127364708634145200096} = \frac{1}{20769187434139310514122185808003136}$ $\frac{1}{1417671818309127364708634145200096} \times \frac{1}{28353436366182547294172182904001536} = \frac{1}{41538374868278$

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